DOCUMENT RESUME

ED 036 361 RC 004 067

AUTHOR	MAHANEY, LEAH; AND OTHERS
TITLE	READING PROGRAMS IN SMALL SCHOOLS.
INSTITUTION	COLORADO STATE DEPT. OF EDUCATION, DENVER.
SPONS AGENCY	FORD FOUNDATION, NEW YORK, N.Y.
PUB DATE	64
NOTE	83P.
EDRS PRICE	EDRS PRICE MF-$0.50 HC-$4.25
DESCRIPTORS	DIRECTED READING ACTIVITY, ELECTIVE READING, ELEMENTARY GRADES, GROUP READING, *INDIVIDUALIZED READING, INSTRUCTIONAL MEDIA, LANGUAGE ARTS, PHONETICS, *READING INSTRUCTION, READING INTERESTS, SILENT READING, *SMALL SCHOOLS, *TAPE RECORDINGS, *TESTING, VOCABULARY SKILLS
IDENTIFIERS	WESTERN STATES SMALL SCHOOLS PROJECT

ABSTRACT

READING PROGRAMS IN 3 SMALL ELEMENTARY SCHOOLS ARE DISCUSSED AND EVALUATED BY THE TEACHERS INVOLVED. THE FIRST AND SECOND PROGRAMS INVOLVED INDIVIDUALIZED MULTILEVEL READING MATERIALS AND READING LABS. TESTING INDICATED, AND INSTRUCTORS FELT, THAT STUDENTS SHOWED MORE GROWTH THAN THEY HAD UNDER FORMER METHODS (ESPECIALLY THE MIDDLE AND TOP GROUPS). THE THIRD PROGRAM INVOLVED TAPED DAILY READING LESSONS WITH EARPHONES FOR STUDENTS, THUS ALLOWING THE TEACHER TO GIVE MORE INDIVIDUAL ATTENTION TO THE STUDENTS. THE TEACHER OF THIS PROGRAM CONCLUDED THAT THE THOROUGH PRESENTATION OF READING SKILLS ON THE TAPE RECORDER GAVE STUDENTS THE ULTIMATE IN READING INSTRUCTION. (AN)

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

ED036361

COLORADO WESTERN STATES SMALL SCHOOLS PROJECT

DOCUMENTATION

[Reading Programs in Small Schools.]

1963-64

Nongraded Reading in Grades One and Two in DeBeque Public School

by Leah Mahaney

Individualized Reading Program for Elementary Grades

by Marguerite Nichols, Florence Freeman & Rhoda Rait

Educational Technology in the Teaching of Reading

by Geraldine Gettman

COLO. STATE DEPT. OF
EDUCATION · DENVER
BYRON W. HANSFORD
COMMISSIONER

RC004067

THE WESTERN STATES SMALL SCHOOLS PROJECT

The Western States Small Schools Project, partly financed by a grant from the Ford Foundation, is designed to help the state education agencies in Colorado, Arizona, Nevada, New Mexico, and Utah in their efforts to improve instruction in the necessarily existent small schools. The Project began January, 1961 and will end August, 1965. Policy board of the Project is composed of the chief state school officers of the cooperating states. Ralph G. Bohrson, Coordinator of the WSSSP, is headquartered in Denver, at the Colorado State Department of Education.

The Colorado portion of the Project, involving more than two hundred teachers and administrators in approximately thirty schools has been working in the following areas:

- Ungraded or Continuous Progress Programs
- Use of Self-Instructional Materials
- Teacher Education and In-Service Programs
- Institutes for Rural School Board Members

For additional information concerning the Colorado WSSSP, contact:

Edwin P. Hildebrand
~~Paul M. Nachtigal~~, Director
Colorado Western States Small Schools Project
State Department of Education
Denver, Colorado 80203

NONGRADED READING IN GRADES ONE AND TWO IN DeBEQUE PUBLIC SCHOOL

Leah Mahaney
DeBeque School
DeBeque, Colorado
1963 - 64

ED036361

I. OVERVIEW

During the past several years as I have worked with groups of children in Grades One and Two in the DeBeque School, I have experienced a measure of satisfaction in the rapid progress of a part of the group. However, the results for another segment of the classes were not so favorable. In order to give the slower pupils special help the two grades were divided into groups. How many groups? This depended not on the needs of the children, but was limited by the time available. Much was accomplished and a number of children became excellent readers--able to comprehend, evaluate and communicate from the printed page. Others achieved less success and the classes were moved on to another grade. At this level, as the more varied program, added subjects, and increased importance of subjects made demands on the time of the teacher, the all important goal in reading was relegated to a less important role. The result--less and less importance placed on the reading program throughout the elementary school. The top students excelled in all reading area subject and the lower ones gained a minimum of knowledge.

With the recent trend toward individualized instruction and continuous progress, it became increasingly important to us to test this method of instruction in our school in order to attempt to raise the standard of achievement.

In addition to the other immediate benefits to the pupils we hope to send them into junior high school better equipped to take advantage of the wide range of opportunities to be found there.

It was decided to start this project at first and second grade level for two reasons: (1) the teacher there was anxious to take a look at this method and discover the best techniques; and (2) the place where students were first introduced to school seemed to be the logical place to start to eliminate as many other variables as possible. As the project advances to the next grade levels it will be possible to do more accurate testing than is possible at this level. The atmosphere in the other classrooms is such that the program will continue through the elementary school.

We started the program of individualized instruction in September, 1963. At this time there were twenty children in grades one and two and the number has remained constant. We have had outstanding success in some areas and have met many problems which we feel are not indications of failure, but a challenge for more research and more adequate planning.

We plan to continue the project through 1964-65. The number of pupils will be slightly increased, the age distribution a bit different, with the greater number being in first grade.

About half the children in grade one for the coming year have attended a private kindergarten. As a result of this training the readiness for reading will vary sharply. We hope to be able to guide the children through the year with considerably more success because of the program in individualized instruction and give each child the opportunity to make as much progress as he is capable of making.

In addition to the program in grades one and two, we propose to extend our work to the rest of the elementary school. With all the teachers cooperating in this effort, we hope we can show definite improvement in the area of reading in our school by the end of another year and even more in two years.

II. SUMMARY OF RELATED RESEARCH

We felt that in terms of the long range goal of providing better reading instruction on a school-wide basis, one of the most effective means would be an in-service training program. In order to accomplish this our three elementary teachers and our superintendent engaged in an in-service program on the teaching of reading. We used the Reading Institute-Extension Service Materials published by Science Research Associates and written by Lawrence Carillo. From this study we have explored many facets of the reading field. Among the most helpful to us were:

- Readiness for Beginning Reading
- Practical Helps for:
    - Teaching Reading in Primary Grades
    - Teaching Reading in Intermediate Grades
- The Retarded Reader
- The Gifted Reader
- Building Specific Skills
- Books and Materials
- Evaluation

Many practical suggestions were discussed such as: teacher's records, pupil records, parent reactions, parent-teacher conferences, building skills by various methods, book lists, and evaluations of tests.

As an outgrowth of this study we have purchased for our professional library a total of six new books in the reading field alone, with special attention to what has been explored and accomplished in the field of individualized instruction.

We have been particularly impressed and motivated by the finding of the authors in this research. We found that the opinions of the authors ranged from recommending a minimum of individualization to a total program based on their research. Jeanette Veach, in her book, "Individualizing Your Reading Program" (see bibliography), tells us that there are seven major steps that should be taken:

1. Making up your own mind
2. Consulting school authorities and parents
3. Deciding who will participate
4. Obtaining enough books
5. Arranging your classroom
6. Planning the independent work period
7. Establishing routines

In general the above are steps that have been taken in our school.

Jeanette Veach also indicates, from the above book:

"An individualized reading program provides each child with an environment which allows him to seek that which stimulates him, to choose that which helps him develop most and work at his own rate of speed, no matter what else is going on."

According to George D. Spache, in his book, "Toward Better Reading," materials are in large measure self-selected. These books may be basic readers, trade books, magazines, or newspapers. In DeBeque School we have used basic readers from many different companies as our first choice, altho we have an adequate supply of trade books which we have used as "outside" reading. Many types of activities have been carried on as a result of reading trade books.

Dr. Spache also indicates that individuals are social minded and for that reason will profit from group work. This seems to bear out our decision to have group work with basic readers.

III. PROCEDURE

Teacher opinion and a program of testing during the past several years has indicated a need for improvement in the area of reading. This need has been felt throughout all the grades in our total school system (1-12). The lack of ability in reading has been indicated by the degree of success (or failure) of various students in other academic areas such as science, social studies, English, and even mathematics. We felt that correction of this weakness should start, not in remedial classes in high school, but rather in improved methods at the primary and intermediate levels.

From a limited testing program in the lower grades and from almost unanimous teacher opinion, it was indicated that while a few children were becoming excellent readers, others were only mediocre or lower using current teaching methods. At the end of each year all these children were, in most cases, passed on to the next grade where the entire group was expected to pursue the prescribed work for that grade. Altho most teachers were dissatisfied with the method and the results, no better system was readily at hand. As a result the top group repeated again and again material which they knew, while some pupils were endeavoring to work at a level for which they had no background. We are now firmly committed to the theory that each child should be started where he is and go from there. At present the best method available is probably a program of individualized instruction.

The first step, after we decided to give individualized instruction a try, was to select the materials. We chose to start our children with the SRA Multilevel Materials. At the beginning of the year we obtained the "First Reading Laboratory (la)," designed for use in grade one, or in grade two where the materials had not been previously used. We also had the "Game Kit," which covers a complete course in phonics for use in all primary grades.

By the end of the year we had provided "Reading Labs" for grades three, four, five, and six. In each of these grades a few weeks of work has been done in preparation for the extension of our reading project for 1964-65.

We used the listening program from "Lab la," in both grades one and two together. In grade one we found it to be an excellent readiness device. In grade two it served as a review and refresher for the beginning of the year. We were quite pleased with the results.

When the listening program was completed all grade two children started individual work in the "Reading Lab." Children in grade one started this Lab at the beginning of the second semester. Starting in the Lab for first grade children will vary according to the maturity of the group.

At the close of this school year we feel that this program has been very beneficial to each of the pupils concerned. Reading skills have improved in almost every case. In addition to this valuable training in self-reliance, independence, self-confidence, pride in accomplishment, interest in varied materials, and the realization that the end of a school is not an "end" but just a rest until we start again at the same place in September. (See chart in Appendix B for an indication of accomplishment.)

Our next selection of material was a basic reader. We feel the need of a basic reader because the children at this level enjoy the social aspect of group association and the sharing of oral reading. It also helps the teacher keep a check on general group progress as well as individual progress.

The group work was handled a little differently than has been the case in the past in order to tie in with our individualized program. The class prepared the story to be read orally, by working out unknown words, enjoying the story, planning for oral interpretation, etc. For some this took a little time while others needed only a quick silent reading. For these top students enrichment activities were assigned such as: ideas for a play; a poem to be memorized or illustrated; extra stories to be read; a scrap book or frieze to be planned; etc. Not every child would always read from the prepared story every day. Volunteers to read certain parts, answers to questions, or passages to show how a character felt are some of the purposes for oral reading. At the end of the oral reading period a work page from the work book to accompany the basic reader was discussed and completed independently.

In addition to our basic reader we secured copies of twenty basic readers from various publishers. These books range in difficulty from pre-primer level to advanced third grade. We have evaluated these on a basis of pupil preference, material contained, skills taught, and general superiority. We shall provide several copies of many of these series for the beginning of the coming year.

To start the use of this extra material we chose, for each child, a book which, in our opinion, he could read successfully. We called this venture "Our Special Reading." Most of the books are divided into units of stories, with each unit consisting of from three to ten stories. The child was invited to examine the book, browse through and choose a "unit of stories" which he wished to read silently. After choosing his unit the name and level of the book and name and number of the unit were recorded by the teacher on a record page in a note book.

After the child had read his unit of stories he was asked to choose one story, the one he liked best, and prepare it to share reading parts and telling parts with the group or with the teacher in conference. Each child at the top level was given a sheet of suggested activities from which he could choose three to be completed for this unit. When these activities were completed and recorded on the Student Special Reading Record he was permitted to choose another unit.

Within a short time children were allowed to select the book they wanted with a minimum of supervision. A bad choice did not result in satisfaction and desire to change. At the lower level in accomplishment there was a chart showing various activities from which the children could choose.

We found this project in special reading extremely satisfactory to both teacher and pupils. The interest ran high and the children were anxious to pursue it further. Those who left the room this year expressed regret that they were leaving some of these books before they had finished reading them. This particular part of the reading project has been the most rewarding experience in many years of teaching. The pupil interest did not lag at any time. Both grades one and two were equally interested. As the teacher had personal conferences with the pupils they expressed enthusiasm. The most common question heard in the morning was, "May we have our special reading today?"

Our final selection of materials was made in securing about one hundred trade books from our county library. These books were exchanged about three times. The children chose the books on the basis of interest and difficulty and were usually able to make a choice without supervision.

The children had a choice of many activities to pursue after reading a book.

As soon as the activity had been completed successfully and demonstrated to the class at our regular weekly check-up period, the child was given credit for the book. At the end of the year certificates were awarded to those who met pre-determined standards.

IV. IMPROVEMENT RESULTING FROM THE ACTIVITY

Since this project has been carried on at levels one and two we have not relied on results of tests to a great degree. It is also difficult to show a pattern of growth at the end of only one year of experimentation. We have done a little measurement testing this year and we shall continue this through the coming year, however, we have some reservations about the reliability and validity of standardized tests with this age group. We feel, further, that by the end of a three-year period we can draw some more definite conclusions with regard to the growth pattern, especially as the children from this year develop to the point where they can be tested more accurately.

We have given a few diagnostic tests which we feel have been of value in identifying areas of weakness for individuals. In the Appendix we have listed the tests we used with some of the results.

Because of the use of several types of materials it was not possible to use each type daily. Reading Labs were used two or three days a week for one hour. Special reading materials were used in the same way alternating the extra day in order to give equal time to both. Our basic reader was used daily for one hour. During this time both silent and oral reading were carried on, necessary skills were taught, records were kept, and special activities were pursued. The time was never sufficient. Children were eager to carry on in all areas. Attitudes acquired by these children were indeed gratifying.

Since this project has been carried on at only one level this year only one teacher has been involved directly. For this reason an evaluation must necessarily be a self-evaluation. For many years the writer has taught primary reading by grouping as to ability using at least two basic reader sets and supplementary material. Because of dissatisfaction with the reading ability at higher levels in our school the writer felt that the individualized instruction program might provide some answers. The challenge was to give the child a foundation which would be carried on through the grades and send him on to junior and senior high school able to comprehend and interpret the printed page and achieve at the highest level possible. This has involved a complete change of schedule. We have much yet to be desired. We need more teacher-made materials and many more and better records. We plan to have the children do more of the record keeping next year in order to leave the teacher free to give more individual help.

We have had excellent cooperation from the entire school staff, Board of Education, parents, and the community.

Full cooperation of the administration and the board of education has made it possible for us to have any materials considered valuable or necessary to success. This together with their faith in our efforts has earned our deepest appreciation.

We have had four parent-teacher conferences at the elementary level this year. At the beginning of the year we gave a brief explanation to each parent in regard to the work we were attempting. At the first conference we explained the SRA program. At the next conference we explained the change in method from our basic reading program. The special reading work was explained at the third conference. Since parents were convinced these changes were an attempt to provide better educational accomplishment for the children, they were interested and eager to help in any way possible. This attitude has continued through the year. By the end of the year we heard parents glibly quoting such terms as "SRA," "Special Reading," "Survey Tests," and "Phonics Games," and we are grateful for their participation and understanding. These parent attitudes are absolutely essential to the success of this type of program.

For teachers who may wish to follow any of these findings we suggest the following:

1. Vary the material and the daily program.
2. Keep the interest high by the use of special activities.
3. Allow sufficient time for the program since at this level growth in language arts is the most important goal.
4. Keep careful records.
5. Teach children to keep individual records.
6. Give special attention and importance to the personal conference between pupil and teacher.

V. SUMMARY

We have conducted this project during the past school year. Time has been the limiting factor in trying new methods. With the introduction of SRA Multi-level Materials, listening, the new technique with our basic reader and, perhaps the most interesting, the special reading, we have had a full year. In the coming year we plan to continue most of the methods with some revisions.

In our opinion and with a limited testing program, we believe all of our pupils have benefited from this project. We believe the children have each shown more growth than under former methods, especially the middle and top groups. We have had at least three instances of children who were immature and had accomplished very little until this year. In two of these cases interest has been aroused, independence and self-reliance have been improved and we look forward to some more definite improvement through another year.

LISTING OF BOOKS PURCHASED FOR PROFESSIONAL LIBRARY AND LISTED BIBLIOGRAPHY

Darrow, Helen F., and Howes, Virgil. *Approaches to Individualized Reading.* New York: Appleton-Century-Crofts, 1960.

Russel, David H., and Karp, Etta E. *Reading Aids Through the Grades: Three Hundred Developmental Reading Activities.* New York: Bureau of Publications, Teachers College, Columbia University, 1951.

Spache, George D. *Toward Better Reading.* Champaign, Illinois: Garrard Publishing Co., 1963.

Spache, George D. *Good Reading for Poor Readers.* Champaign, Illinois: Garrard Publishing Co., 1962.

Tinker, Miles A., and McCullough, Constance M. *Teaching Elementary Reading* (2d ed.). New York: Appleton-Century-Crofts, 1962.

Veach, Jeannette. *Individualizing Your Reading Program.* New York: G. P. Putnam's Sons, 1959.

APPENDIX A

Tests Administered to Grades One and Two
1963-64

Harrison-Stroud Reading Readiness Profiles (Grade One).

Monroe Reading Aptitude Tests (Grade One).

The Lorge Thorndike Intelligence Test (Grades One and Two).
(See chart)

Doren Diagnostic Reading Test (Grades One and Two).
(The results from this test will be of special value to teachers in pinpointing areas of weakness in order to provide remedial work.)

Basic Reading Tests (Grades One and Two).

APPENDIX B

ATTAINMENTS IN SRA READING LABORATORY 1a
Grades One and Two

(Indicated)
(SRA Grade Levels)

STUDENTS IN GRADE ONE AND TWO BY NUMBER	1.2	1.4	1.7	2.0	2.3	2.6	3.0		
1								4.5	
2						X			
3						X			
4						X			
5					X				
6					X				
7					X				
8				X					
9				X					
10				X					
11			X						
12			X						
13			X						
14				X					
15			X						
16			X						
17		X							
18		X							
19		X							
20		X							

APPENDIX C

DISTRIBUTION OF IQ'S FROM THE LORGE THORNDIKE INTELLIGENCE TEST

Grade Two

Distribution of IQ'S

80 84	85 89	90 94	95 99	100 104	105 109	110 114	Number of Cases	Median IQ
1		5	3	2	1	1	13	95

Grade One

Distribution of IQ'S

85 89	90 94	95 99	100 104	105 109	110 114	115 119	Number of Cases	Median IQ
1	1		1		1	3	7	110

INDIVIDUALIZED READING PROGRAM FOR ELEMENTARY GRADES

Marguerite Nichols, Florence Freeman &
Rhoda Rait

Plateau Valley School
Collbran, Colorado
1963 - 64

I. THE REASONS FOR THE RESEARCH AND DEVELOPMENT ACTIVITY

1. Needs indicated by student data. The primary concern of those engaged in this project is that of developing a program of education for raising the level of achievement of the culturally immature youth who come into our classrooms from this rural area. Our aim should be to help pupils become skillful, self-reliant, and independent readers who will continue to enrich their understandings and satisfactions throughout their lives by reading.

The only student data available at the beginning of the year was test scores in S.R.A., Weekly Reader, McKee and Scott Foresman, and Iowa Basic Skills. These scores showed a wide variation in ability, and a need for individual help for many students.

2. Needs indicated by curriculum deficiencies. The former curriculum did not allow time for necessary individual instruction for slower pupils or those having special difficulties. The quality and quantity of material being used failed to interest and challenge faster pupils, and teacher-selected materials often caused frustration and boredom. All pupils within a given group were reading the same story at the same time, and at approximately the same rate, which failed to challenge better students and did not meet the needs of the average and slow learner.

3. Needs indicated by existing student behavior. Several children within each ability group are bored with basal reader stories which they must read regardless of their interests. Many "gathered wool" while their classmates laboriously waded through a portion of the story. Children reading at a frustration level develop a feeling of inferiority and defeat which results in emotional and disciplinary problems. Lack of interest when material is beyond the child's comprehension, will cause attention to lag and develop

poor habits of concentration. Ability grouping encourages a lack of self-reliance, independent thinking, and problem-solving.

4. What unique advantages or weaknesses of the small school situation prompted or required your effort? The school administrators encourage experimentation and development of new methods and techniques. The curriculum is flexible in that it does not require a rigid amount of work within a stated time. There is only one school in our district and one teacher for each grade. All teachers are individualizing reading to some extent, so that the pupils can follow through in a varied and interesting reading program. The school provides any books or supplies for which there is a definite need and adequate library material is available. In a larger and more complex system many of the foregoing situations perhaps could not be achieved.

5. Summary of related research. Dr. Helen Kyle, Professor of Education, C.U., Boulder, Colorado, was the inspiration for research and later development of an individualized reading program. The bulletins of the Reading Institute Extension Service created an interest in the possibilities of improving methods and procedures in the reading curriculum. The following is a summary of related ideas compiled from research.

Undertaking an individualized reading program requires courage, vision, and planning. To follow it through requires mental and emotional conditioning, otherwise one will find his thinking and practices falling back entirely to basic readers. This method is extremely involved, complicated, demanding, and intricate. It requires a vast amount of knowledge and a wide range of professional freedom.

Individualization means meeting the needs and capacities of the individual based on thinking involving new concepts with respect to class organization, techniques, materials, and child development. It is an attitude of reading that is good and joyous with the emphasis on learning not teaching. It is difficult to be consistent because, (1) individualized reading is new, (2) it is a challenge, (3) it is different, exciting, and to some disturbing and frustrating, (4) it requires complete abandonment of basal readers as such, (5) it, also, requires a different philosophy and different set of values and involves new practices, (6) it frees the teacher to help each individual child.

Individualized reading is a basic program. It is a matter of individual concern for each child, and each should have the opportunity to proceed at his own rate and in accord with his interest. When a child is allowed a choice in reading he develops a purpose for reading. There is steady progress without failure, and stimulation of interest and enthusiasm. It is a way of organizing materials and children to meet the real objectives and values concerned with learning. Habits of concentration, problem-solving, creative thinking, and self-management are developed. There is a better relationship between teacher and pupil fostered by individual conferences. One of the highlights of the program is the opportunity to share reading experiences with other members of the class.

According to studies made in California, New Jersey, Pennsylvania, New York, and Michigan there is no best answer or way of planning for Individualized Reading. It is effective in all grades if the teacher knows what to do and how to do it. Research states that in formally designed experiments the supervisors felt that the teacher is the key and she must be interested, intelligent, efficient, flexible, and creative with a knowledge on the entire range of teaching reading.

BIBLIOGRAPHY

Betts, Emmett A., "Developing Basic Reading Skills Through Effective Class Organization," Education (May 1958) 561-572.

Bowden and Others, "Quality Through Individualized Instruction," Childhood Education (April 1960) 361-370.

Carson, Louise G., "Moving Toward Individualization," Elementary English (October 1957).

Crosby, Muriel, "Organizing for Reading Instruction," Elementary English (March 1960) 37.

Crossley, Ruth and Mildred Kniley, "An Individualized Reading Program," Elementary English (January 1959) 34.

Dolch, E. W., "Individualized Reading vs. Group Reading I," Elementary English (December 1961).

Dolch, E. W., "Individualized Reading vs. Group Reading II," Elementary English (January 1962) 14-21, 32.

Groff, Patrick J., "Getting Started with Individualized Reading," Elementary English (February 1960) 105.

Harris, Beecher H., "Preparing to Think About Individualized Reading," Phi Delta Kappan (February 1962).

Hostetler, Beverly, "What Does Individualized Reading Mean to You," Elementary English (March 1962) 263.

Hunt, Jr., and Lyman C. Hunt, "Individualized Reading Teaching Skills," Childhood Education (May 1961) 541.

Lazar, May, "Individualized Reading," Education (May 1958) 78:281.

Sartain, Harry W., "Research on Individualized Reading," Education (May 1961) 515.

Sharpe, Marda W., "Follow-Up Activities," Elementary English (May 1959).

II. INDIVIDUALIZED READING IN THE SECOND GRADE - PROCEDURE

1. Identifying the need. There is actually no single approach to efficient reading instruction, but research indicates the needs, interests and abilities are better met through individualized reading.

Scores from first grade reading tests showed a wide range of interest and ability in children beginning in the second grade. Teacher-made tests in word analysis, comprehension, phonics and other reading skills revealed a need for individual help. Beginning second graders need to learn to work independently and to gain power through reading at their own rate of speed and in accord with their abilities. Children also need to think independently, to be able to comprehend what has been read, but more important, to predict the outcome of events in a story.

Children need the opportunity to read an abundance of material which interests and challenges them and to be able to share their knowledge with others. Essential attitudes and understandings which may be developed through individualized reading are: being able to read critically, to compare, to draw conclusions, to arrive at generalizations and to be able to build on previous experiences acquired through reading.

A balanced program in reading will include reading for many purposes from many types of materials. Because of their age and maturity second grade children need to be exposed to some of these different purposes such as reading (1) for information, (2) to find answers to questions, (3) to read about an interest, (4) to follow directions (5) reading to share with others, (6) reading for pleasure.

2. Selecting and using materials. Reading materials on different levels should be available at all times. Children's needs and interests should be studied to motivate reading experiences. Many of the necessary skills may be developed through practice exercises chosen on different levels to meet

the varied needs of the class. Skill building materials such as those found in the S.R.A. Laboratory and basic work books, are important.

Reading materials selected for this program ranged in difficulty from advanced first grade to easy fourth grade levels. Several copies of different basic readers on varied levels were used to help develop skills needed by most primary pupils.

A well-rounded reading program contains many trade books which help develop specific kinds of reading skills. A child's general reading ability may be satisfactory but it is not adequate in specific areas. About four hundred trade books, on levels which suited the abilities of the class, were borrowed from our county library. The room library had about fifty hard and paperback books which were added to the library collection. These books were an invaluable source of inspiration, enrichment and pleasure.

S.R.A. materials were selected and used. My Weekly Reader, Read Study Guide, and My Study Guide, were read by the class as a group. S.R.A. proved very valuable in developing comprehension and word building. It provided interesting reading and information on all levels. A wide variety of workbooks and teacher-made work sheets were presented on different levels to reinforce needed skills. The children were encouraged to bring reading material from home such as current events, lost and found, things to make, poems, and short stories. These materials were chosen to encourage and motivate reading.

3. Planning and conducting class activities. At the beginning of the year the children were given basic readers ranging in difficulty based on first grade tests and teacher recommendations.

The daily reading period of ninety minutes was divided into two parts, sixty minutes in the morning and thirty minutes in the afternoon. Two days a week the S.R.A. Reading Laboratory was used. Basic readers were used two days and the last day of the week was devoted to Weekly Readers and Read

Study Guide magazine. The children were allowed to choose any basic reader they wished on their level of difficulty. Five different basic readers on three levels were used. Most children read from three to five of these readers during the year.

On the days when basic readers were used each child read silently at his own rate. Children read different stories in readers best suited to their abilities. At the same time all the children were looking for a specific new skill which the teacher presented to the class as a whole. These skills may be those used in word analysis, endings, phonetic blends, word meanings, vocabulary, etc.

The children recorded examples of the skill presented each day, as well as a vocabulary list of new words encountered in their daily reading.

The pupils record book is divided into three parts. The first part is for the name of the book or story, the date, and page read each day. The second section is devoted to the listing of new skill presented daily. The back of the book is for vocabulary or new words found in reading. The teacher helps the child analyze and learn these words and try to learn their meanings through context.

A sample of the pupil's record books is shown here:

ON WE GO (Record for several days)	NEW SKILLS		VOCABULARY	
	(Record of skills and words a child might find in a day.)			
Apr. 16 - p. 8-19	1. think	5. thing	huge	listen
Apr. 17 - p. 19-30	2. thank	6. that	mirror	everywhere
Apr. 28 - p. 30-39	3. threw		craft	traveled
Apr. 29 - p. 39-48	4. throw		swept	flopping
			squawk	nor

These record booklets are collected from time to time and checked by the teacher in order to get a better over-all picture of the child's progress.

While the class is reading silently in basic readers the teacher goes to each child's desk and listens to him read a portion of the story aloud.

A few questions are asked about what has been read and then what the child thinks will happen and why. The teacher can quickly check the child's progress and problems by scanning the record book to see how many pages have been read, what examples of new skills have been found and what new words the pupil has found.

Individualized reading in basic readers consumes about forty minutes of the reading period. Next the children work on new skills or strengthen others by working individually in work books which may or may not accompany their texts. When the workbook practice is finished, children complete a teacher-made work sheet emphasizing new skills presented. Each of these reading sheets develops a different skill. The work sheets are numbered and each child works through these as rapidly as his ability allows.

The children chart their own progress through these sheets. The teacher may follow the sequence of skills developed in basic readers and phonics outlines to insure presentation of those needed in second grade. By giving pre tests to children the teacher will discover which pupils need which skills.

Included are samples of teacher-made tests which may be enlarged upon and used as pre-tests of to check how well skills have been learned.

4. Trying new methods and techniques. Of primary importance in an individual reading program, is the presence of a large number of meaningful materials on many different subjects and levels. Children must be taught how to select the right book. Books are placed on the library shelves in order of difficulty. The easiest books were on the top shelf which was marked with an orange strip of paper, the books of average difficulty were on the "blue" shelf and the hardest were on the "red" shelf. Therefore the teacher might suggest to a child that he would enjoy books on the "blue" shelf. A pupil should be allowed to browse through the library until he finds a book which suits his interests and level of ability. The child should take the book to his desk and experiment with it to see if it is too difficult. If he

must be told more than five words on a page, the book is too difficult and he should make another selection. Once a child chooses a book and starts to read it, he must finish it and give his report. A few children have trouble making a selection and spend time aimlessly looking at books. Others read the same type of books each time, without enlarging their scope of reading. In these and other similar cases the teacher should give suggestions and encouragement so that the child can progress.

A thirty-minute period in the afternoon is devoted to reading self-selected material from trade books. Individual conferences of three to five minutes are held with each child periodically. The pupil comes to the teacher's desk where the story is discussed and portions of it read. These conferences bring about a relationship between student and teacher which cannot be attained in any other way. The teacher stimulates the child to further reading by leaving the child with a problem to solve about the story. He should be able to foresee what will happen and why.

Records of conferences are kept for each child in a loose leaf notebook. On one page is recorded the child's name, date, name of book, and skills to be checked. The opposite page is used to record test scores, type of sharing and any comments about it and notes about the attitudes and personal reactions of the pupil. Record sheets may be similar to the accompanying sample:

PUPIL'S READING RECORD

Name Mary	expression	fluency	word attack	word analysis	phonetic skills	vocabulary	too slow	too fast	skips words	transposes	comprehension	problem-solving	sequence of events	sharing	
Feb. 6 Palomino Pony	X		X	X								X			very good!
Feb. 20 Gertie the Duck	X							X			X				
Mar. 3 Go to the Moon	X		X	X							X		X		
Mar. 12 Story of Lincoln															Nice Booklet

(check only those skills which need more drill or practice)

Test Scores	Basic Readers	Work sheets completed
Weekly Readers	We Are Neighbors	1, 2, 4, 6, 7, 10
14- 17 · 19	On We Go	11.
S.R.A. 4.9 - 5.1	Around the Corner	

(Record only those work sheets which have been satisfactorily passed.)

Notes Mar. 10 - Mary is improving in word attack.

She sill needs help with expression.

Mar. 29, Mary had a very good sharing activity. She knew her story well and gave an interesting report.

Name______________ Date Dec. 6

Test 4 - Phonograms

Mark the word which begins like the word I say.
(Teacher says words beginning with: sp, sw, squ, str.)

1. stop shoe spoon stair sleep
2. snap swim slip slide steam
3. smooth step squirrel sneak sew
4. steak stew stell skip street

Mark the words with short vowel sounds.

1. drop cat cluck duck
2. pet bump nod mill
3. apple break tub time
4. cake deer goat shop

Put a vowel in the blank to make a word.

1. b__g sh__p b__ke sh__ke
2. t__p ch__p t__il sn__ke
3. m__n th__n sm__ile br__id

Mark the sound you hear when I say "__________."

1. gr sw sh sm str cl
2. th bl sm pl st dr
3. br ch wh fr scr tr
4. sl sn sk sp pr cr

Each of the above examples should be enlarged upon to present fifteen to twenty reading skills. Skills should be presented in sequential order. The teacher's record may look like the following:

Name	Test No.	Skill Tested	Result	Comments
Nancy	4	short vowel	10 missed	needs more drill

When a book has been completed by a pupil, at home or at school, he may share it with the rest of the class. Not all books read are shared, but each pupil should share every three or four weeks on some book which they have particularly enjoyed. In sharing children learn to talk before a group, and to think and tell part of the story in sequence. It is the pupil's responsibility to select a part of the story, to which others would like to listen. Listening skills and conduct of the class are practiced by the group in this activity. The pupil has an opportunity to express his understanding and appreciation through his activities. Sharing is a reading activity enjoyed by all, listeners as well as those sharing.

In sharing a book with classmates the pupil must give the title, the author, characters and one or two interesting parts of the story, and then present his special sharing activity. One reading period a week is devoted to sharing activities. From a large wall chart children may select from a list of activities, not repeating until all have been used. These activities may be dioramas, paintings, paper, clay or stick figures to illustrate characters. They may make book jackets, puppets, shadow boxes, booklets, new vocabulary list, illustrating the story in order, dramatizing part of the book and any other sharing the teachers and pupils may care to add.

Since children are reading materials closely related to their needs, failure and competition are eliminated. Children also have more opportunity for appreciation and enjoyment and reading becomes a satisfying experience.

The home and school should coordinate their efforts to help improve reading habits and develop new interests in reading. The children made a booklet for home reading records. Parents were asked to help their children correctly record books read at home. Before the close of school, mothers signed the booklets and returned them to the teacher who recorded the total number of books read by the child during the year. The pupil then had his booklet to keep.

5. Evaluation. Individualized reading has proved satisfactory in that many more books of varied interests and difficulty have been read by second grade pupils. The better readers were challenged by more difficult and more interesting books. The slow readers were not frustrated because of material they could not read or understand. The teacher has a chance to analyze and give personal help to each child. Children's needs are better satisfied, and frustration is lessened under this program, and pupils learn to work independently.

One of the problems of individualized reading is the lack of time needed for re-teaching or strengthening skills.

In conclusion, the real benefits of individualized reading are understanding and security, satisfaction and relationships cannot be measured.

III. TEACHING INDIVIDUALIZED READING IN FOURTH GRADE

Provision for individual differences involve a desire to meet the needs of the individual child. One must become acquainted with each child. Although bright children learn quickly and are bored by unnecessary routine and drill, they still need instruction. There should be parent-teacher conference. Information may show that the pupil needs certain kind of individualized instruction.

Every child is entitled to the best education he is capable of achieving. Pupils learn at different rates. The slow achiever as well as the rapid, both should continually progress in their skills and factual knowledge. Different procedures and many kinds of materials should be provided to maintain interest at a high level. Reading is the most important subject in the elementary curriculum. Progress should be gained at each individual's ability level.

1. Identifying the need. First is to discover the amount of development that has occurred in each student. Second is the discovery of means whereby greater ability may be developed. Giving of reading for meaning tests will make it possible to identify the reading strengths and weakness of individual pupils. These tests should not be confused with standardized reading tests. The reading for meaning tests help measure the basic reading skills such as phonetic skills, word meaning, word identification, reading study skills, comprehension, and meaning difficulties.

Oral response is used to be able to hear the problems more definitely, especially in the areas of word attack and word recognition. Check lists are used to help obtain evidence of the particular difficulties. The check list should be used for several days.

2. Gathering preliminary data. Study tests that were given in previous years to help to identify the needs, Weekly Reader Tests, Reading for Meaning

Series Tests. Each battery contains five tests designed to measure progress in the acquisition of basic reading skills. Listening Comprehension Tests are to determine each child's ability to comprehend materials suitable to his reading. Individual oral reading tests are an aid to discover a pupil's ability to read with accuracy and comprehension and to find his reading level. The S.R.A. Achievement Test results, and Iowa Test of Basic Skills profiles are available. Check reading skills of the child by observation and keep records of difficulties.

3. Selecting and using materials. Individualized reading is based on the principles of self-selection and on individual pacing of reading materials used. In the fourth grade emphasis is on continuing extension of vocabulary, especially areas associated with content fields; building further comprehension skills, reviewing and adding to word-attack skills. Silent reading receives much more class time than oral reading and speed of silent reading begins to increase. A large amount of independent reading is done both for pleasure and for information. Because of the emphasis on independence in reading, the S.R.A. Reading Laboratories are good to use at this point. Basic readers are used to some extent and trade books are used extensively for each child so he can read at his own level. Trade books are obtained from the room library and the county library. A class enrollment of thirty or over should have available two hundred or more trade books and many basic readers to be used by the individual child. The student chooses a book that is of interest to him and not too difficult.

Many of the more fundamental skills of word recognition and word attack will be established by the time the student reaches the fourth grade so the greater comprehension may be built from that base. The word meaning using context clues, multiple meanings, effects of accent on word meaning, homonyms, antonyms and synonyms are studied. Comprehension skills are checked to determine the ability to find the main idea of a paragraph, chapter or entire selection. The gifted reader should understand that the process of thinking is an essential part of effective reading. Speed in reading should not be stressed in the fourth grade. The slow reader must have help with word recognition as he loses the thought behind the word when attempting to use the word attack skills or context to get the meaning. During the introduction of new words attention is called to special characteristics of new words, the spoken word correlated with the printed word. The children are given practice in the use of the word. Context clues are used when the word becomes more obvious due to the rest of the sentence in which it is included. Dictionary aids are used for pronounciation and to get the meaning of words. The skillful reader does not have to rely on any single method in order to recognize words. During the discussion of a story ask "why" questions to show relationship of the characters to the thought.

The need to challenge the able reader is and will continue to be a steadily growing responsibility for the teacher. A child must discover that reading is a unique experience for which there are no substitutes. He must discover that in reading there are satisfactions for emotional needs, a better understanding of himself, a growing awareness of the world around him. In reading he should come to understand that reading is an activity, a way of exercising skills, of bringing imagination into play, above all, a way of growing and developing. The need is for books that will provide a challenge. In the middle grades the able reader can often be stimulated to an interest in how children live in other lands. A book should be relevant to his own world; it should enrich his growing sense of reality and not tempt him to escape from it.

4. Planning and conducting class activities. The S.R.A. Lab is used to teach individualized reading each morning for the first six weeks of the school year. This method teaches how to check the answers to questions given with each story; how to keep progress charts; to develop listening skills; to increase

the rate of reading and to comprehend what is read. The child progresses at his own rate and does not have to read with a group. Checking his own work and keeping charts to show progress is a learning experience. The Lab is used two days a week the remainder of the school year. Three days a week basic readers are used by each individual child. Sometimes two children will choose the same book and then paired reading is done.

At the end of the seventh week Reading for Meaning Tests are given to discover where help is needed. Reading for Meaning Series by Albert G. Reilley, Houghton Mifflin Company are tests for checking phonetic skills, word meaning, word identification, reading study skills, comprehension and meaning difficulties. These and teacher-made tests are used when the need arises.

Reading should be taught as a thinking process and short basic reader stories will be read with enthusiasm. Trade books are read and the Weekly Reader, too. Trade books are used during a forty-five minute reading period in the afternoon. The program is based on self-selection and on individual pacing of reading materials. Each child will select a book that is a subject of interest to him and on his own reading level. Sometimes it will take longer than one period for a child to choose a book. If the child has more than four words on a page he cannot pronounce,the book is too hard and he should return it to the table and must choose another book. Individual conference is held with each child at least once a week. During a part of this time the child will read orally to the teacher. Careful records are kept on each individual and skill-building groups can be set up as children reveal their needs during conference. The teacher may discuss the child's story with him after he has read orally. Some of the skills may be taught as necessary. Much planning is in order inasmuch as each child is working in different books. The learner is to have the opportunity to explore a wide variety of reading materials, so his selection is truly his own. Suggestions are possible but only when the child asks for them.

Two pupils decide to investigate some particular subject and report what

ORAL READING INVENTORY

Comprehension based on both thought and fact questions

Vocabulary

Mispronounce words

Natural, rhythmical & well phrased

Jerky, unnatural

Many substitutions

Omissions

Repetitions

Finger pointing

Frowning

Erratic body movements

Faulty breath control

Name of book

Students name

they find to the class. This would include the use of reference books. It may be a subject in which there is much interest in the class. It may originate because a problem occurred in some area of the curriculum which requires reading to find the answer. This type is especially valuable since it is based on the use of reading skills, and broadens this use in presentation in the other language arts. Other enrichment activities are dramatizations, posters, reading of (and listening to) related stories and poems. Viewing pictures, slides, movies, and filmstrips related to the story create interest in reading. Reporting, telling a story, reciting a poem are ways of creating interest in the sharing one day a week. Reading silently or listening to a story read to the class and making a scrapbook to depict the story in pictures. The pictures are drawn by the children as they see it in their mind from the descriptive paragraphs. This reading lesson does not assume any particular period of time. It could be completed in a single reading period with a very short story or it could take several days.

5. *Trying new methods and techniques.* The tape recorder and overhead projector are new in the classroom and are used with a great deal of interest to the students and teacher.

Poems are read by the teacher and then a discussion period about the rhythm, rhyme and punctuation marks. A child will read a poem as it is recorded and then listen as it is played back. The child can hear how he reads the poems and gain some knowledge as he listens. Some poems are shown on the screen by the overhead projector and used for choral reading. The S.R.A. Lab is a new method used for teaching individualized reading in the fourth grade. The S.R.A. Achievement Test was used for the first time this year.

6. *Evaluating results.* The individualized reading system has many advantages over the traditional method of teaching reading. Every child comes to like to read. He has a book to read, one of his own choosing, and can read at his own pace without humiliating comparisons with another child. The results

are very gratifying. Children who dislike reading change their minds. Maladjusted children change their attitudes and fit in with the group in other activities. Good readers do more reading and make progress.

Children read more and better books under the individualized method of teaching reading. Methods of teaching are improved and better books are available which stimulate interest and appreciation for better literature. A child will view his reading performance as having a place among the reading patterns of other children. Individualized instruction holds much promise in meeting many problems. There is no set plan for teaching individualized reading. The program varies from day to day. Evidence proves that even retarded children think. One must be able to ask questions which stimulate thinking that result in worthwhile information, insight in behavior and its effect upon others, in recognition of different viewpoints, and in understanding of human relations.

Advantages of this method appear to be: self-selection of materials keeps interest and motivation at a high level. Individual differences in ability are taken into account more fully than any system of grouping and individual teaching more nearly reaches particular problems. Children are not compared directly with one another. A larger amount of reading seems to result. A closer relationship between the teacher and the child may result from individual conference sessions. Independent work habits and self-direction tend to be fostered. The more advanced readers are not held back with others who are making slower progress.

A teacher should remember that his room is a "whole" room. In order that pupils may feel that they are all a part of a whole, it is a good policy to bring them all together for certain activities. Such activities might be choral reading, individual or group reporting to the class, listening activities, or dramatizations and displays.

IV. INDIVIDUALIZING READING IN THE FIFTH GRADE

1. Identifying the need--philosophy of reading. Individualized reading is teaching reading with emphasis on LEARNING not TEACHING. It is a developmental approach to reading, based more closely on specific capacities and needs of children, and how they learn. This type of reading is based on thinking which involves new concepts, not only with respect to class organization, techniques and materials, but also, to the child's development needs as well. It is a philosophy translated into practice.

With individualized reading, many proponents feel that habits of concentration are strengthened, problem-solving is stressed, thinking is encouraged, more creative expression is possible, and reading is becoming more realistic and purposeful. With this method children are permitted to use reading from the beginning, to enjoy its pleasures and satisfactions here and now. This procedure will not reduce or eliminate the spread in reading abilities found within a group, but will increase the spread even more.

The most important learning any child may secure from school is LIKING TO READ, and if individualized reading will accomplish this task better, it should be used. The reports show that even maladjusted children change their attitudes regarding reading due to the fact they have an interest, and material on their accomplishment level. If this type of a reading program is skillfully administered it surely would be a way to enrich the faster learner and maybe eliminate need for corrective teaching.

2. Gathering preliminary data. The basic principles of individualized reading are self-selection and sharing. Reading is taught with materials which the children may choose to read. There is a free choice of materials. The books are of many types, subjects, and many levels of difficulty.

Assumptions on which this type of instruction in reading ~~is~~ are based are:

(1) The method is devised to meet individual needs of children in the class.

(2) Children are motivated to read materials of interest to them and which have been selected by them.

(3) Children are encouraged to read at their own rate.

(4) Teachers are permitted to work almost entirely with individuals.

(5) This method combines the best elements of recreational one-to-one skill reading, but it is not to be confused with recreational reading, which is for fun and the development of fluency on present level.

(6) This does away with ability grouping and groups are, if groups are organized; temporary and based on interests, friendships, sociometric grouping.

(7) The daily reading period allows each child to read during the entire reading time.

(8) Silent reading is important and is used except when children are reading to the teacher or an audience.

Basis for these assumptions are:

(1) Ability grouping does not fit the needs of children.

(2) Ability grouping is undemocratic--children often lose interest in reading.

(3) Teacher preparation for groups (3 group-method) takes up much time and energy which could be directed into more useful channels.

(4) As many as thirty children can be handled in this program.

(5) Teachers can spend much time helping individuals.

(6) Children can choose their materials to fit needs as well as teachers--or even better. (Research in child development at the University of Michigan has shown this.)

(7) Wide selection of books will lead to wide reading and greater interests of children in reading.

The teacher's attitude is of utmost importance and she must realize this method is more complicated and difficult than basal reader method alone. The teacher must have enthusiasm and a great deal of initiative. There must be instruction in all skills with basic skills receiving emphasis, practice must be given, teacher must be a guidance and resource person, and be able to motivate pupils so they will be prepared for self-selection. The teacher must be an expert planner to prevent behavior problems and each child at the end of his planning sessions should know what he is to accomplish that day. Pupil-teacher conference may last 3 to 10 minutes and techniques for recording as much as possible about how well, and why, should be established.

Opportunities for children to do group work should not be overlooked if a group shows need for the same type of work. A sharing period is always a must at least once a week.

If a teacher is able to put faith in interest as the prime motivator for reading and also, believes reading to be an individual process, regardless of its social aim or ends, individualized reading will be more satisfying than teaching reading in groups.

3. Organizing the program. This program has two reading periods per day, 45 minutes each morning and 45 minutes each afternoon. During the morning period the material used is from "Trade Books" entirely, by "Trade Books" this is library books.

These books were obtained from the Mesa County Library in Grand Junction, and also from the room library. Each year new "Trade Books" are added to the supply for the room library.

For an individualized program in reading it is necessary to have available as a minimum about five books per student, and these must cover many interest levels as well as be two grade levels below and two grade levels beyond the reading ability of the group.

During the summer before starting this program the books were chosen from the library, and included non-fiction, fiction, biographies, and books on many interest levels. These books were covered briefly by the teacher and a card was made for each, recording a few fact questions on the main points in the story as a recall for use during pupil-teacher conferences. It is impossible to cover all of these books at the beginning of the project but as more material is made available for the students the teacher covers it also.

To help the children choose a book to fit their needs with regard to reading level the teacher prepared a small card in the pocket of each book on which the following information was recorded:

SAMPLE

This card was 3" x 4"

This book is an EASY 5

Read the book and find the reason the dog loved the children.

You could share this book with a book jacket or poster picture.

Would you like to tell the most exciting part to the class?

This book is a MEDIUM 5

Some words to look for and check their meaning in the dictionary:
(List words and page numbers.)

This book might be shared by making one or more puppets or you could make a movie set.

You might have the puppets tell the funniest part.

This is a DIFFICULT 5

Look for ways the Colorado River has been tamed.

Make a poster to show these interesting facts.

You might give 10 things you learned from the book.

The books were placed in the room so they were easily available to the students according to the reading level; such as, easy 5 in a certain place, medium 5 in another area, and also, separated according to fiction and non-fiction material. The students were instructed to choose a book according to their interests and read a page or two at random. If the student found more than 3 unfamiliar words, except proper nouns, the book would be too difficult and he was to choose another one.

It is important to know the IQ and general learning factors of each child. These were obtained from permanent records and results from standardized tests as well as grades from the previous year. A child should never be discouraged or told to not read a certain book if he wants to read the book and his ability shows he is capable of reading the material. A child soon learns his reading level and accepts this level willingly, and as a rule will select books to suit his needs.

During the afternoon reading period the S.R.A. Reading Lab 11B was used during the first part of the year. The placement test in the student's records book will place each child in the Lab according to his ability. The students were able to use the Lab with ease as they were introduced to the Lab in the fourth grade. (The Lab used was S.R.A. Lab 11A.)

There were five sets of readers on various levels: "Finding the Way," Allyn and Bacon, "Days and Deeds," and "More Days and Deeds," Scott Foresman. "The Wonder-Story Books," Row Peterson, Grades 3, 4, 5, and 6; "Open Door" and "Paths to Follow," American Book Co., Grades 3 and 4. After using the S.R.A. Reading Lab for about the first 2 or 3 weeks, each child was given a reader according to his reading level as shown by his ability in the Lab. If his reading level in the Lab was third grade, he read in a third grade basal reader. Sometimes as many as 10 students were in the same basal reader or there could be only 5 or less in another book. Each student read at his own rate and teacher-made check sheets, workbook material, and other activities to determine each child's progress were used.

Once each week the entire group used the Weekly Reader for Fifth Grade. This was the only time the entire group read the same material. Individual differences were provided for with teacher-made check sheets, requiring the maximum amount of work for the able student, and only a minimum amount of work for the slow worker.

4. Selecting and using the materials--trade book use. When using the trade books self-selection was the most difficult adjustment a child had to make, and was also the part in which the teacher must exercise the most patience. Some authors state that the teacher should not be discouraged if a few children had 3 to 6 weeks to find a suitable book. Within a short time students found a book and though some read materials too easy, others chose materials too difficult. With training and continued exposure to this material students soon learned to choose a book to fit their needs and interests. A record sheet is kept for each child to be filled during the pupil-teacher conference. The following is a sample of the record sheet showing skills to be observed for silent and oral reading.

PROFILE CHART

Name________________________ Book________________________

Date________________________

Oral Habits

1. Word-by-word reading________________
2. Pointing________________
3. Limited sign vocabulary
    a. Lack of context clues________________
    b. Lack of phonic skills________________
    c. Endings________________
4. Substitutions________________
5. Repetitions________________
6. Omissions________________
7. Reversals________________
8. Insertions________________
9. Speed________________
10. Poor expression________________
11. Poor enunciation________________
12. Comprehension________________
13. Hesitation________________
14. Phrasing________________

(Continued on next page)

Profile Chart (Continued)

Silent Reading

1. Habits
    a. Pointing____________________
    b. Vocalizations____________________
    c. Speed____________________
2. Lack of comprehension
    a. Getting the main idea____________________
    b. Noting details
        (1) Stated____________________
        (2) Implied____________________
    c. Understanding concepts____________________
    d. Making inferences____________________
    e. Following directions____________________

For other pupil-teacher conferences the following record was kept in a loose leaf notebook:

CHILD'S NAME____________________

DATE____________________ BOOK____________________

SPECIAL WORK NEEDED____________________

NUMBER OF WORDS MISSED TODAY (These are listed)____________________

GOOD POINTS TODAY____________________

OTHER COMMENTS____________________

The child's record keeping consisted of a daily diary placed in a spiral notebook. The following is a sample:

CHILD'S DAILY DIARY

(THIS WAS FILLED EACH DAY)

DATE____________________

NAME OF BOOK____________________

NEW WORDS TODAY____________________

(During pupil-teacher conference words missed were recorded here from the list the teacher made as child read orally.)

(During pupil's silent reading he was encouraged to record new words he encountered and if the meaning could not be gained through context he child was to use the dictionary and write the word's meaning.)

PAGES READ TODAY: BEGIN ____________________ ENDED____________________

(If child worked on a report or a sharing activity that day he was to record just what he did briefly.)

(At the end of each day new words were used in sentences which were also recorded in this diary.)

The student brings his diary to be checked at least once each week or oftener. This is done during pupil-teacher conferences. As a child read orally and came to a word which he could not pronounce or comprehend its meaning this word was recorded for the child to be placed in his diary at the end of the conference, the meaning checked in the dictionary and this word to be used in an original sentence by the child.

The conferences lasted about 5 minutes per child and the list of students due for these conferences was posted each day or announced to the class. During conference time some of the following activities were used according to each child's needs:

(1) Check the story each child was reading and note the number of pages read since last conference. If the child had covered a great many pages a brief comprehension check of this material was made. During the child's oral reading the teacher records points observed on his Profile Chart. New words were recorded and this time offered many opportunities to check many reading-skill needs, and "on the spot" teaching proved more effective than group instruction. Good points were emphasized as well as habits which needed correcting.

(2) When the child had finished his book and wished to share the book with the teacher rather than the class, this was taken care of during pupil-teacher conferences. The teacher used the cards previously made to check the child's comprehension, and interpretation of facts. The child usually told the part of the book he enjoyed and answered what the book did for him. The student who was unable to answer the comprehension questions or showed he had not read the book was asked to go back to different parts and it was stressed that he had missed the best part.

Each child was encouraged to share a book with the class once every third week if possible. One reading period per week was given to the child to prepare the sharing activity. The names of the students sharing that week were posted and students were asked to share each book in a different way which brought surprising and amazing results.

The following chart was made and placed on display at the beginning of the school year:

(36" X 48" PAPER)

CLASS SHARING IDEAS

I. MAKE A POSTER TO ADVERTISE YOUR BOOK.
YOU MAY USE PAINTS, CRAYONS, CHALK, PAPER
SCULPTURE, OR CUT-OUT PICTURES.
Tell the part that interests you or goes
with your poster.

II. DECORATE A BOOK JACKET
You may use the part of the book that goes
with your picture to interest the class.

III. Make a comic-strip of the favorite part
of your book. Make your characters tell
a part of the story.

IV. A SHADOW BOX IS FUN. PUT YOUR CHARACTERS
IN A BACKGROUND OF COLOR.
Tell the part of the story that was fun for you.

V. Make a mural of the part of the story you
liked most.

VI. MAKE A SMALL BOOKLET OF YOUR BIG BOOK SHOW
THE MOST EXCITING PARTS BUT KEEP THE END A
SURPRISE.

VII. Make a diorama using a box lid.

VIII. Make two or more puppets and let them
tell the story part that was exciting.

IX. Build a movie set on a box. Puppets will
fit nicely in this part and help you

tell the story for the class.

X. Make pictures of the most important characters. Tell interesting parts about each character.

XI. Write a new ending for your story. Draw a picture to show how you would have the story end.

The following are more sharing ideas that were used during the year:

(1) Write a book review for the school paper and read this to the class. Make it more interesting by illustrating your story.

(2) Prepare a monologue from the story. Make yourself like the character by talking as the character did in the story.

(3) If you have a book that tells HOW TO DO SOMETHING demonstrate what you learned.

(4) Make a postcard review of the book if it is a travel book. Make the listeners want to visit this place the way you did.

(5) Write to the author and ask him to make a new ending. Read the letter to the class.

(6) Pantomine a part of your book and make your audience want to read the book to find out what you were doing.

The students were very enthusiastic about the sharing activities and many times the child with a great deal of ability gained much from the sharing of a child with a lesser amount of ability. This also created interest in reading unusual books that other students had never read.

When each child finished his book he made a card summary of the book as follows:

STUDENT'S CARDS

(Size 5 x 7)

AUTHOR____________________NO. OF PAGES__________

NAME OF BOOK________________________________

MAIN CHARACTERS_____________________________

KIND OF STORY (FANTASY, BIOGRAPHY, ADVENTURE, MYSTERY, HISTORICAL FICTION, NON-FICTION)

Student's Cards (Continued)

TELL THE MAIN PART OF THE PLOT (BRIEFLY)

SIZE OF PRINT______________________________

KINDS OF PICTURES AND HOW MANY____________________

WHY YOU LIKED THE BOOK________________________

YOUR NAME__________________________________

These cards were checked for errors and many times required corrections. Then they were filed in the filing box. These cards improved greatly as the year progressed. Each book the student read was shared with the teacher or with the class.

Use of S.R.A. Reading Lab and basal reader materials. The afternoon period was used for Weekly Reader group instruction on Monday. The new words with their meanings and ways to use them in context were introduced. Students copy these new words with their meanings in their "diary books." Different activities using these words were employed such as games, sentences, match exercises, and others. The Weekly Reader paper is read silently, and then orally, or it is discussed by the class members. Then check sheets are given to the students, thus following S.R.A. plan which is SQ 3R. Survey the material, ask questions, read then reread and review. The following are qeustions from the check sheet.

WEEKLY READER

SURVEY AND QUESTION

Where does the news headline take us?________________________

What activity does the headline report?_______________________

PICTURE READING:

Read the caption to see where this picture was taken.

What different impression does this picture give of Antarctica?

WORD MEANINGS:

ANTARCTIC--the south polar region

CONTINENT--one of the seven great masses of land on the earth.

EXPEDITION--group of people, ships, planes, and equipment that make a journey for some special purpose.

READ THEN ANSWER THESE QUESTIONS:

What four facts show that midsummer is a busy time in the Antarctic?____

What has been accomplished in the Antarctic since the 1955 and 1956 season?____

This introduction to new words and reading the paper was an entire group activity. However, the more able students were challenged with additional activities which might be the searching for additional material and preparing reports for social studies or science. The Science Supplement, Map Supplement, and a Word-study Inventory were used as aids for teaching the various skills.

The S.R.A. Reading Lab 11B was used according to the directions in the teacher's manual with the lab. This lab was a very valuable aid in that it is designed to offer individualized reading instruction to students in their regular classrooms under the direction of their regular classroom teacher. The program is aimed at demanding and getting each individual's top performance --developmentally and with due regard for individual differences.

Students having trouble with the same parts of the lab, or failing because of the lack of the same skill were placed in a group and provided instruction for that particular skill. Students encounter such difficulties as word meaning skills, inferred meanings, synonyms and antonyms, or phonetic skills such as long and short sounds of vowels, vowel combinations such as ee, ea, ie, etc., or vowel and consonant combinations such as vowels with r. For the student having any particular difficulty a group was formed, the skill taught, checked and perhaps retaught, then the group was dismissed. For students having no trouble it would have been a waste of time to drill for these skills. Since the dictionary skills bring problems to many students, the entire group received instruction for these skills both in the language period, and also, in connection with the reading period. After the students used the lab for from 2 to 3 weeks they were given the basal readers according to the ability shown from the work in the lab. Pupils read each story silently--then filled a check sheet, using the book and rereading to complete the answers. These questions were taken from the teacher's manual, others were "teacher-made," checking such things as comprehension, interpretation, vocabulary, as well as story detail sequence. Some work was given from the workbook which accompanied the text. The work given to the student was fitted to his special need as indicated by his responses during pupil-teacher conference.

If the story in the book had little to offer the student, it was omitted, and at other times a story far ahead in the book would fit the subject content for a particular time. For each story there were one or more check sheets and the students were encouraged to complete one story per day. The student progressed at his own rate as long as he did a satisfactory job according to his ability.

As with the trade books, pupil-teacher conferences were set up in regular sequence. During this time the sheets covered by students the previous days were reviewed and questions answered; also, other reading skills needed were taken care of as an individual teaching process, or a group was organized to stress a particular need. The student read an exciting part or reviewed the sequence of events of the story. Each conference was approximately 5 minutes in length.

Many times "paired-reading" was an effective way to handle material such as "conversation," "poetry selections," or "plays." This gave students experience with an audience.

The basal readers, S.R.A. Lab 11B, and the Weekly Reader were used for the afternoon reading period in the above manner throughout the year. Any reading program to be adequate must meet the varying levels of reading achievement and potential, and stimulate and satisfy all interests of each child. By using the basal readers along with accompanying teaching guides, and other materials which were suggested, as well as library books, the program should be adequate to promote sequential and systematic growth.

5. Trying new methods and techniques. Trade books had to be read by the teacher ahead of time, and it was an advantage to have some of the same books the second year.

To adequately check each child's reading-skill needs, tests were prepared and given, then the skill was presented when the need arose. To best accomplish the task of teaching skills it was necessary to be able to recognize the difficulty each individual might be having and then obtain or make materials to fit the needs. This work was time consuming and a very flexible program, which allowed for experimentation, and had to be followed.

The size of the class had much effect on any reading program--individualized or group. Since individualized reading was devised to meet the individual's needs, and because the child has selected his own material he reads because he feels a genuine interest. The many books accessible and the greater variety of stories, more nearly met the interests of all children than the use of only basal readers.

Since each child could find a book on his reading level there was no frustration because of "too hard" a book or a feeling of inability to read the material. Every student had the opportunity to read in a subject field for which he felt a particular interest, thus reading was a more pleasurable experience. Each child progressed at his own rate receiving individual help when needed. The daily reading period allowed each child to read during the entire period, covering more material than with former methods. Slower readers were not segregated, or were there "fixed groups" which branded some as superior and others as dummies. Group reading lessons are "competition and comparison" rather than "cooperation." With individualized reading each child enjoys himself and is not interested in comparison.

To avoid confusion there was a rigid preparation program on self-selection, so the child understood how much to read and ways to select books from interest and information standpoint.

Pupils acquired a larger reading vocabulary by context, and by keeping their own word list while reading and then using these words in some form of original material.

The sharing activities proved very important as they opened for some children a new avenue of expression and encouraged creativity. Language skills, both oral and written, were also strengthened.

Reading skills such as word recognition (including phonics), location of information, and summarizing were taught to groups of children according to their needs. There were adequate skill-drill textbooks for this type of reading instruction. The reading lab greatly strengthened the program because it gave each child the opportunity to start at a point at which he met a reasonable degree of success and enabled him to move as fast and as far as his learning rate and capacity would permit. Regardless of a child's learning rate and capacity, he was allowed to see and "feel" his progress, and experience the satisfaction of forward movement. The increased use of self-supporting, self-corrected material that provided immediate and long-range feedback, resulted in more efficient training in the use of many skills required for school and life success.

By providing books and other materials on the child's level and interest, his appreciation and interest for reading deepened.

6. Evaluating results. In determining pupil achievement there is no one test or battery of tests to assess adequately progress toward all three major goals of reading which are:

(1) Helping children mature in those interests which are satisfied through reading-study skills.

(2) Guiding the child so his acquisition of phonetic and related word learning skills can be used automatically.

(3) Teaching children how to think in reading-study situations.

In testing for capacity for achievement the use of standardized tests are not always valid, due to many factors.

In keeping records of pupil's work to determine the grade to use on report cards, the student's profile charts on oral and silent reading habits were used. The notes recorded during the pupil-teacher conferences and the student's diary were also used to weigh the work each student had accomplished. Also, taken into account was the work covered using the daily check sheets which accompanied the basal readers and the S.R.A. reading booklets.

Perhaps a fair grade could only be determined by considering the pupil's potential and actual achievement. A progress chart would be a more satisfactory way to tell the story than a single grade. If a pupil did his best work and still read at a level two or three grades below the class he should not be graded C or D. If he is given an A he will think of himself as an A student, only to find as he approaches the age of high school or even college that he is not an A student and does not have academic ability even to meet college requirements.

A dual grading system might be the answer, giving one grade for effort and another for a realistic ranking or comparison of functional ability.

V. IMPROVEMENT RESULTING FROM ACTIVITY

1. For students--indicated by objective test results. The program has not been in effect a sufficient length of time to collect substantial data. The following test results show an indication of gains made.

RESULTS OF STANDARD TESTS

WEEKLY READERS 1963-64

Grade 2

Fall	Winter	Spring
1st - 20 - 17	1st - 20 - 19	1st - 20 - 20
2nd - 16 - 15	2nd - 19 - 18	2nd - 20 - 19
3rd - 14 - 10	3rd - 17 - 15	3rd - 19 - 19
4th - 10 - 4	4th - 14 - 8	4th - 19 - 15
	S.R.A. Tests - 1964	
1st - 5.7 - 4.8		1st - 6.9 - 4.5
2nd - 4.5 - 3.9		2nd - 4.2 - 3.6
3rd - 3.6 - 3.3		3rd - 3.6 - 3.2
4th - 2.8 - 2.4		4th - 3.1 - 2.6
	Scott Foresman Tests	
2^1 Jan. - 64		2^2 Apr. - 64
1st - 70 - 64		1st - 70 - 67
2nd - 64 - 60½		2nd - 66 - 64½
3rd - 60 - 54		3rd - 63 - 54
4th - 54 - 53		4th - 54 - 37

RESULTS OF TESTS

Grade 4

S.R.A. Achievement Test April, 1964

Comprehension		Vocabulary
Quartiles	Grade Equivalent	Quartiles
1. 7.0 - 9.6		1. 7.2 - 10.0
2. 5.4 - 6.8		2. 5.2 - 7.0
3. 4.6 - 5.3		3. 4.1 - 5.0
4. 3.3 - 4.5		4. 2.5 - 3.9

Iowa Tests of Basic Skills Given April 8, 1963

Comprehension	Vocabulary
Quartiles	Quartiles
1. 5.3 - 8.7	1. 5.5 - 6.5
2. 4.6 - 5.2	2. 4.7 - 4.9
3. 4.0 - 4.5	3. 3.8 - 4.5
4. 2.7 - 3.8	4. 2.3 - 3.7

Iowa Tests of Basic Skills Given April, 1964

1. 6.0 - 8.6	1. 5.7 - 7.3
2. 5.4 - 5.9	2. 5.0 - 5.5
3. 4.9 - 5.3	3. 4.2 - 4.8
4. 3.5 - 4.8	4. 2.7 - 4.0

Weekly Reader Tests

September 1963	January 1964	April 1964
1. 5.0 - 6.0	1. 5.2 - 5.5	1. 5.5 - 6.0
2. 4.7 - 4.9	2. 4.7 - 4.9	2. 5.1 - 5.4
3. 4.4 - 4.6	3. 4.4 - 4.6	3. 4.8 - 5.0
4. 1.0 - 4.3	4. 2.6 - 4.3	4. 3.5 - 4.6

RESULTS OF TEST SCORES

Grade 5

Weekly Reader Tests

Time test was given: (1963 and 1964)

QUARTILE	October 1963	January 1964	April 1964
1.	6.5 - 6.9	6.5 - 7.5	6.8 - 7.5
2.	6.0 - 6.5	6.4 - 6.5	6.5 - 6.8
3.	5.7 - 5.9	5.8 - 6.4	6.3 - 6.4
4.	4.6 - 5.6	5.4 - 5.8	5.6 - 6.2

S.R.A. Achievement Test

This test checked comprehension and vocabulary. This was given to Grade Five at the end of the first semester. (1964)

QUARTILE	COMPREHENSION	VOCABULARY
1.	9.0 - 9.6	8.4 - 9.5
2.	7.2 - 8.0	6.1 - 8.1
3.	5.1 - 7.0	5.0 - 6.0
4.	3.6 - 51.	3.9 - 5.0

Iowa Basic Skill Tests

Results at the end of Grade 4 (1963)

QUARTILE	COMPREHENSION	VOCABULARY
1.	7.0 - 9.2	5.9 - 7.8
2.	5.9 - 6.8	5.5 - 5.9
3.	4.8 - 5.7	4.6 - 5.4
4.	4.3 - 4.6	4.3 - 4.6

Results at the end of Grade 5 (1964)

	COMPREHENSION	VOCABULARY
1.	7.9 - 9.5	7.5 - 9.6
2.	6.4 - 7.7	6.0 - 7.3
3.	6.0 - 6.4	5.8 - 6.0
4.	5.2 5.8	4.0 - 5.4

As indicated by anecdotal records. These records tend to show that all children have read many more trade books on a wider variety of interest levels than under the former reading program. The better readers in all grades have read between 30 to 50 trade books. The poorest reader achieved more satisfaction and enjoyment from books on his level because he could comprehend the material. Records show a noted improvement in silent and oral reading habits.

Teacher-made tests show improvement in silent reading skills over the past year. Individual records on reading abilities, skills, and interests were kept for each child and difficulties were noted. During teacher-pupil conferences the needed reading skills were taught or re-inforced.

Student behavior changes. Children are independent about accepting responsibility for completing and checking work, and charting their steady progress. The attitude is of satisfaction only with work that is done to the best of each child's ability.

Because children can find an abundance of material to fit their needs and interests, their attitude and enthusiasm toward reading has greatly improved. Because of exposure and training, children are able to select a better quality of material to read. Working as an individual helps a child to understand and accept his accomplishment level. The broad scope of literature enables the child to realize his place as an important personality. He develops a better understanding of the world and its people.

2. For teachers--changes in methods of teaching. Before the individualized reading program was introduced in the school, reading was taught by grouping with traditional methods, using only basal reader materials.

The new reading program now includes instruction to meet the individual needs, abilities, and interests of each child. Groups are formed to meet a specific need and dismissed when the purpose has been accomplished. Basic readers, trade books, work books, and work sheets are used on an individual basis according to each child's needs and capabilities.

More emphasis is placed on silent reading rather than oral, because of the need and desire to read an abundance of material in real life situations. The entire reading is devoted to silent reading except when the child is reading to the teacher or an audience.

The teacher spends almost all of his time working with individuals rather than in preparation and presentation of group materials.

Changes in teachers' attitude towards job. The individualized reading program has greatly improved the teacher's attitude because of the challenge, flexibility, and opportunity for developing the program according to his students' needs and his own interpretation.

The results of individualization are more satisfying because of increased pupil-interest and achievement.

This program is more enjoyable because of the interest and approval of the administrators.

Observable interest of non-project teachers. Non-project elementary teachers have shown an interest in the program by planning and developing individualized projects to meet the needs and interest of their students.

3. *School and community--indicated by changes in school operations.* Time has been given project teachers to visit and observe other outstanding individualized programs in surrounding areas.

The school has provided for outstanding consultants to advise and assist in the project. It has also purchased supplies and equipment necessary to develop this activity.

Indicated by community involvement, acceptance and interest. This project has not been in progress long enough for any community involvement. Due to the fact that it is still in the experimental stage there is neither acceptance nor interest.

Educational Technology in the teaching of Reading
Geraldine Gettman
1963-64

INTRODUCTION

WOODLIN SCHOOL DISTRICT
Woodrow, Colorado

Woodlin School District R-104 is a 750 square mile area located about 80 miles east of Denver on Colorado's rolling prairies. The school plant, located in the geographical center of the district, consists of a main building housing classrooms for grades one through twelve, gymnasium, cafeteria and kitchen, home economics and science laboratories, all purpose room, administration offices, and teacher and student lounges. An adjoining building houses the shop and vocational agriculture classrooms. The newest addition, completed in 1962, contains the language laboratory, music department, additional classrooms, and a 500-seat auditorium. Located on the grounds are several duplexes available rent-free to teachers. Also located on the grounds is a large storage and service garage for the district's nine buses. The buses are each equipped with short wave radio communication with the central transmitter in the superintendent's office. Buses travel as much as 40 miles each way to bring students in from the sparsely settled area.

Riding a bus over any one of the routes, one sees wide-open spaces interspersed here and there with oil wells, grazing cattle, and wheat fields. There are large, corporation-type farms and cattle ranches, smaller farms supporting the families who operate them, farms dependent on rainfall for successful crops, and farms using well pump irrigation. Wheat and other small grains, corn, alfalfa, and beans are the usual crops raised here.

There are three small villages, average population 30, which are centers of three different communities within the school community. While these small towns were commerce centers before modern transportation, they have become less important, survivalwise, in recent years. Residents travel 40 miles north to Brush, or 40 miles south to Limon to shop, attend movies, swim, or bowl.

In addition to the farming and cattle operations and the small businesses in the three villages, the oil industry offers employment and revenue to the community. If it were not for the oil, the 5 year old school plant and modern facilities would probably not exist, and certainly would not be nearly debt free.

There are approximately 200 students enrolled at Woodlin. A typical class includes children from homes of farmers, cattlemen, ranchers, businessmen, laborers, oil workers, and teachers.

The school district as it exists today was composed of several one-room elementary schools and two high schools a few years ago. The name "Woodlin" is actually the first part of each of the two former high schools, Woodrow and Lindon. The pangs of reorganization were painful and there still remains some tension among some of the people. Time heals, however, and thanks to a forward looking board of education and an excellent school administrative staff, past and present, Woodlin is fast becoming one of the finest educational institutions in the state.

The writer, having taught second grade in Brighton for three years and having worked an additional two years in the elementary school office in Brighton, taught at Flat Top School, a former one-room school in the Woodlin District, during the 1952-53 school year. In September, 1961, she returned to the classroom to teach the second grade at Woodlin. The Gettmans have lived in the Woodlin community since 1950 and have at least two good reasons for being vitally interested in Woodlin's educational growth: David, aged twelve and Dennis, aged nine.

THE TEACHING OF READING

If it is understood that reading skills are the core of a primary curriculum, it is then accepted that the teaching of reading requires a great deal of time, repetition, and patience. In heterogeneous grouping - and in so-called homogeneous grouping - found in the self-contained classroom, there are usually as many levels of intelligence and progress as there are students. In order to maintain interest and enthusiasm, and to insure adequate progress in reading skills and abilities, it is necessary to group students into two, three, or more reading groups. The teacher must present, drill, and provide practice according to individual differences within each group as many times a day as there are groups. When time runs out, someone suffers - the slow learner, the fast learner, or both. Traditional methods provide for the so-called 'average' learner. The teacher must accelerate the educational program for fast learners, give slow learners the opportunity to master - as nearly as possible - the basic program for the grade level, and, at the same time, provide for the needs of the average learner. While the teacher is working with one reading group, the rest of the class are supposedly working at workbook or other reading-skill activities, often requiring individual help. The slow learners flounder without guidance; the fast students finish with time to waste.

Often in a formal reading group, the teacher and the students are interrupted by another student seeking help. The group thought for the moment is temporarily discarded, attention is turned to the individual's problem. It takes a few minutes for the class to get back to the task at hand. Also, a group is often interrupted when the teacher must stop to reprimand or redirect the activities of students who have completed the assignment and have 'nothing else to do' except to disrupt classroom discipline. Such interruptions often necessitate the omission of one or more class sessions during a school day. Interruptions often contribute to haphazard skimming, resulting in poor teaching.

How can one teacher present and direct a formal reading lesson, offer additional instruction to slow learners, effectively direct and stimulate fast learners in an enrichment program, and, in so doing, develop to the fullest extent all the potentialities of all the students? All that is really needed to accomplish this ultimate in education is a teacher with as many heads and corresponding appendages as there are students, and an inexhaustible amount of time and energy! While this is ridiculously impossible, there are ways and means to do a better teaching job.

In this age of scientific research and technological advances, there are innumerable teaching aids designed to enable the teacher to make better use of time and energy in order to provide students opportunity to progress according to individual potential and interest, rather than at an 'average' rate. The modern teacher has a responsibility to self, to students, to the school, and to the community to investigate and to take advantage of any means to upgrade the educational process. This report is concerned with just one of the many media in modern education - the tape recorder.

The Foreward in The Tape Recorder in The Classroom[1.] states:

> "The tape recorder is not a substitute for the teacher. There are many ways in which tape recordings may be used merely to save time and energy . . .Tape recordings should be used only when the use enables the teacher in the classroom to do something better than he or she could do it without a tape . . .

[1.] Minnesota Mining & Manufacturing Co., St. Paul, Minnesota, The Tape Recorder in the Elementary Classroom.

> The tape recorder is not a teacher; it is a teaching and learning aid."

Certainly, this teacher could not express her personal philosophy concerning the tape recorder any better.

HYPOTHESIS

Considering the problems concerning the teaching of reading and the possible uses of the tape recorder, it seems feasible that: By using the tape recorder to present the daily reading lesson, and by using earphones to project that lesson to small groups, the teacher is free to give additional instruction, direction, and stimulation to another group or to individuals. The reading story presentation and phonics skills lesson is continuous since there are no interruptions from other students as there would be if the teacher were personally presenting the lesson. By using earphones to hear the lesson, the students are less aware of other classroom activities thereby hearing and learning more.

By using the tape recorder in this manner, the teacher is indeed doing two things at once, teaching a basic reading lesson via earphones to one group, and simultaneously working with another small group or with individuals.

IN THE BEGINNING

In the 1961-62 school year in a class of twenty-two second graders at Woodlin, there were three reading groups, referred to here as Groups A, B, and C. The grouping was not static; at times there would be four or five smaller groups; at other times we would gather as one group to read 'just for fun'. Group C consisted of four students who began reading at various levels from pre-primer to 1^2 level. The students in Group B were average readers at second grade level, while those in Group A were generally good readers and bright students in other areas. Groups A and B were flexible and interchanged so often that the students were not conscious of the grouping as it appears here. If a child in Group A had difficulty with a particular phase of the lesson, he repeated it with Group B. While Group B had an additional lesson designed to provide further practice in oral reading for interpretation and comprehension and to strengthen phonetic and word analysis skills, Group A read supplementary material, dramatized stories, wrote book reports, or prepared oral reports. In this manner, it was possible to keep the two groups together in the basic text. However, in attempting to bring the slower students up to the average class level, the brighter students were neglected. Groups B and C were making progress and showing marked improvement. Group A was still the best in the class, but capable of so much more! Time was needed to provide challenge and opportunity for extended learnings for these children.

It seems significant to note here that there are 3 T's involved in transmitting the 3 R's: Teacher, Time, and Technology. While as egotistically reluctant to accept 'machine-teaching' as anyone, it was necessary to accept and to appreciate the need to do a better teaching job, to find a way to make ultimate use of time and energy, and to realize that taking full advantage of scientific research and technology would do what could not be done by the teacher alone.

In the spring of 1962 I experimented briefly with taped reading lesson presentations. There was enough evidence of success to encourage me to submit a proposal for a research and development activity at the Colorado Small Schools Project workshop at Greeley, Colorado in June, 1962. The proposal consisted of two general themes:

A. To produce teacher-made tape recordings of basic reading lesson presentations and to employ such recordings via individual earphones in order to provide more teacher-time for individualized and small group instruction according to need.

B. To investigate and find use for programed materials in providing for remedial work for slow learners, and challenging, stimulating material for fast learners.

1962-63 PROJECT

In September, 1962, I faced a second grade class, a tape recorder, and a set of individual earphones. With mixed emotions - high aspirations and an even higher degree of quakiness, ordinary knowledge and ability, and almost no experience with the technicalities of the media in which I was about to experiment, I began my first Project year.

There were 11 girls and 6 boys in the class, with IQ's ranging from 80 to 112 and one unmeasurable deviation who will be referred to here as "X". There were many problems concerning X and the class situation that will not be elaborated on here and is mentioned only to inform the reader that X was an emotional problem causing much stress.

All of these students had been kept together as nearly as possible in the 1st grade, and, after a brief review, were placed in the 2^1 Scott Foresman Reader, the basic reading program followed throughout the grades at Woodlin. The term 'basic' is referred to here as that part of the reading program from which formal phonetic and structural word analysis skills are taught - in this case, the Scott Foresman series.

Grouping was accomplished by listening to oral reading and by observing phonics and other reading-skills abilities. No review of 1st grade reading tests or IQ scores was used as a basis for grouping. Performance was the determining factor. It is pertinent to note that after the initial grouping was accomplished a check with the first grade teacher indicated that this was very much the way they were grouped at the end of the first grade. Again, the grouping was not static and there was opportunity for changes in the grouping as individual abilities changed during the year.

Group A consisted of students able to read quite well independently and to understand and accomplish skill work efficiently. Group B students had more difficulty in phonetic analysis skills, and consequently read less well. Group C students had varied levels of ability and comprehension, one child was a second grade repeater, and the other three were slow workers, immature, dreamy, and/or extremely allergic to work. Groups A and B were interchanged as individual abilities fluctuated. X constituted a group alone. Occasionally X read with Group C during oral reading practice sessions, but monopolized the session so completely with behavior tending toward szchizophrenia, that the others gained very little. As the year progressed X withdrew, or was withdrawn necessarily for the good of the others, from most group study. It seems pertinent to note that X made the most reading progress and seemed to gain the most understanding when placed at the lesson-listening-center alone. When placed there with a group, X would be fascinated by the others' headsets, would concentrate on watching the others, play with her own headset, or just generally apply herself to making as much disturbance as possible, and consequently, no one gained much from the taped lesson. Also, X seemed to gain more from the taped lessons than she did when I worked with her alone. X was withdrawn from school in January, but until then, she did make life more interesting - and certainly more complicated.

Because these students had been kept together in the basic reader in the first grade it seemed desirable to keep them together in the basic reader in the second grade. By allowing the faster students to move at speeds according to ability in supplementary material and by giving the slow group opportunity to repeat the taped lesson each day, it was possible to keep them together until January, 1963. By then the spread of individual differences became wider and the better groups were clamoring to go faster. When they began racing the voice on the tape through a lesson, it was indeed time to allow them to proceed at a faster rate.

They continued to have an occasional taped lesson about once a week designed primarily to promote smooth and expressive oral reading. The methodical presentation of new words, phonics and discussion was held to a bare minimum. Usually they read the story silently, discussed it in class, and did some oral reading, usually in dramatization form. Groups A and B were not together in the basic reader at this time, group B moving more slowly. This meant that each group had different skills introduced each day and neither group received as much formal instruction as had been presented to them on tape. Again, there was the old problem of just not quite enough time during the school day to get everything done. It was also very difficult to transfer a child from one group to the other without causing him to either repeat or to skip part of the material.

When the faster groups began reading independently without benefit of taped lessons, the slow group, because of increasingly poorer work and low 2^1 test scores, began reviewing the 2^1 work. Realizing that this repeating of material is not an educationally sound practice, it still seemed necessary to repeat the reading-phonics-skill-work before going on to the next level. Test scores the second time through revealed very little, if any, improvement. The group proceeded through the 2^2 basic work without benefit of taped lessons. The workbook and other reading skill work was about the same level as that done the 1st semester. Test scores for 2^2 were lower than 2^1 test scores, however.

The two faster groups' 2^2 test scores were also slightly lower than 2^1 scores. (See APPENDIX A, B, and C for test scores.) This could indicate that taped lessons caused children to retain more. However, test scores of past years indicate that it is not unusual for children to score better on 1st semester tests than on 2nd semester tests. Perhaps everyone - teacher and students - slows down during the second semester.

The two faster groups, 12 of the 16 students, read the Scott Foresman and the Houghton Mifflin second grade series simultaneously. They read the Ginn second grade series, several other miscellaneous second grade readers, and numerous library books. By the end of the year they were reading comfortably and enthusiastically in the 3^1 Houghton Mifflin reader and had completed the Scott Foresman 3^1 transitional reader, Tall Tales.

Comparing the scores of the 1962-62 class and the 1962-63 Project class shows slightly higher scores among those children in the project class. (See APPENDIX A, B, and C for test scores.)

The class began working with the SRA Reading Lab 1B[2] in March. The SRA Listening Skill Builders were given on tape. This material adapts beautifully to tape-recorder-teaching. It was possible for small groups and/or individuals to do the Listening Exercises during any free time. The tapes were saved and will be used again next year. A story from the material is read on the tape, followed by the exercises, a series of questions and choice of probable answers pertinent to the story. The students marked their answers in individual workbooks. The correct answers were then given on the tape while they checked their work and

---

2. Reading Laboratory, Produced by Science Research Associates

recorded their scores. Again, this saved time since it took about 30 minutes for a Listening Skill Builder exercise. All the taped lessons were kept within a 30 minute time limit because children became tired and 'tuned-out' if the lessons were any longer. If a particular reading lesson required more time, it was divided into two sections, one section to read and study the story and perhaps do part of the phonics, another section on the remaining word-study skills and exercises to be used later in the day.

The SRA Reading Lab provided additional individualized reading activity. The students were most enthusiastic about it and progressed quite well. At the end of the year there were:

2 students in 'aqua' - grade level 1.4
2 students in 'purple' - grade level 1.7
2 students in 'orange' - grade level 2.0
1 student in 'blue' - grade level 2.6
1 student in 'brown' - grade level 3.0
7 students in 'red' - grade level 4.0

Instead of doing just a few in each 'color', each student progressed through all the lessons in each color. Out of my inexperience with SRA, I thought this would facilitate a good review. Only during the last few weeks of school did I relent and allow a student to go to another color after he had successfully completed four lessons in a color without error. There were still some students, however, who preferred to do all the stories in a color because they enjoyed doing them. Those students still in 'aqua' and 'purple' were slow workers and had just not progressed beyond that point. The students in 'red', 4.0 level, were more comfortable at the 'green', 3.5 level. The SRA Phonics Survey was given at the end of the year to determine phonics strengths and weaknesses. The tabulated test results should facilitate progress next year when the SRA Reading Lab I, Word Game Program, is put into use.

I firmly believe the thorough presentation of reading skills on the tape recorder during the 1st semester gave these students the ultimate in reading instruction. I regret that I did not continue all year, gradually cutting down on the details so that the lessons did not become wearisome to advancing students. It is here that technical problems do arise. How many of the teaching suggestions in the manual can be alleviated? How much do these children need? Ideally, taped lessons should be geared to accommodate all levels of ability, but what is needed by the slower groups may be unnecessary for the fast learners. The 1962-63 project indicated that children do respond to taped lessons and that they do learn as well, if not better, as they do in an ordinary classroom situation, and that taped lessons free the teacher from repetitious story presentations providing more time for individual and small group instruction.

The project for another year will be to solve some of the problems - to not bog down in January, but to continue with taped lesson presentations working gradually toward less methodical detail, teaching new skills, but keeping in mind the growing abilities of students. It seems advantageous to keep a class together in the basic alleviating the need to have more than one taped program each day. By gradually simplifying the taped lessons, the stronger students should not become restless in the basic program IF they are allowed to move at individual speeds in supplementary and enrichment materials. A significant advantage about presenting a lesson on the tape recorder is that one follows the teacher's guide more accurately and it is less likely that an important idea or skill will be missed. It is possible to skim over or skip entirely some things that seem insignificant when presenting two or three - or more - reading lessons a day. A criticism of this method might be that the bright student doesn't need all that drill. Perhaps, but I believe that too much drill is better than causing students to miss an important skill, idea, or concept.

I felt that this method of presenting a reading lesson was very effective and complete. The students seemed to progress faster and the teaching job was easier. It was a thrilling experience to observe children responding so warmly to taped lessons. They weren't required to do analytical thinking aloud, but it was common for them to 'talk back' to the tape. Oral responses didn't disturb the rest of the students. It was quite possible to have one group at the listening center having a taped reading lesson, another group nearby practicing a dramatization, and still another group reading orally to the teacher. Discipline problems were few because everyone was busy participating in a learning situation - not sitting idly by waiting his turn with the teacher.

PROCEDURE USED FOR TAPING A LESSON

Using the teacher's manual as a basis for the script and as much teacher-ingenuity as desired the lessons may be taped as follows:

I. Introduction: Review the story read previously, identify story, instruct children to turn to the correct page, supply background needed, "talk" about the pictures, set the stage for purposeful reading.

Example:[3]

"Yesterday we read a story about Mr. Ground Hog. Do you remember what Mr. Ground Hog learned about himself?...Pause... Yes, he found out that he is a sign of spring. ...etc. Today we are going to read a story about another animal friend. Who do you think it is?....... Yes, Mrs. Goose. Do you see anything strange about Mrs. Goose in the picture on page 109? .....Yes, she has her coat on backward! What does that make you think about Mrs. Goose? ...... Yes, she does look rather silly, doesn't she? Do you think she might be forgetful? .... Why do you think so? ......Well, let's read the story to see if you are correct."

---

[3] Scott Foresman 2^2, pg. 109, More Friends and Neighbors.

As much 'conversation' as seems needed is used to get children 'in the mood' for the story. Perhaps the most surprising part about this type of lesson is that children do respond so warmly to the voice on the tape. There is an immediate feed-back as the voice on the tape supplies the correct response so that children do not become confused from hearing all the other responses in the class and they have an immediate check on their individual responses. While the children are seated next to each other at the listening center, they hear only the voice on the tape and are not as aware of each other as they are in a regular class situation; they are very much aware of the teacher's voice, however, since she is talking directly into each ear.

II. Read the story, page by page. Discuss, raise questions for purposeful reading.

Mrs. Goose Forgets

> Early one morning silly Mrs. Goose came knocking on the schoolhouse door. She came knock, knock, knocking with one end of her big blue umbrella. Miss Gray Squirrel, the teacher, heard the sound and came to open the door. "Come in, Mrs. Goose", she said. "Come in and make yourself at home". Miss Squirrel pointed to a chair, but Mrs. Goose was too excited to sit down. "I just came to ask . . . I came to ask... Now what was it I came to ask?"

The teacher reads the story at a rate of speed suited to the students' abilities, using slightly exaggerated expression, stressing smooth and meaningful phrasing. As the year progressed, the rate of speed increased. The children read with the voice on the tape, sometimes orally, sometimes silently. Oral reading does not disturb others in the classroom since the taped voice via earphones assimilates a quiet "whispery" type of situation. As little discussion as possible was used at the end of each page, just enough to establish meaning and to stimulate purposeful reading, but not enough to disrupt the fun of reading the story. As the year progressed, discussion was delayed until the entire story had been read.

Sample of recorded 'discussion':

> "What happened when Mrs. Goose knocked on the schoolhouse door? .... Yes, Miss Gray Squirrel opened the door and invited Mrs. Goose to come in. What kind of 'person' is Miss Squirrel? .... Yes, she is very polite and courteous because she invited Mrs. Goose to come in and have a chair. What kind of 'person' do you think Mrs. Goose is? .... Yes, she seems befuddled - silly - excited - absentminded -. Have you ever had a hard time remembering something? ..... Do you sort of know how Mrs. Goose must feel right now? ......Let's read on to see if she remembers what it is she came to ask."

III. Re-reading the Story:

During the first part of the year when each page was read and discussed as described above, the story was then re-read without interruption for speed and oral interpretation. As the year progressed, this seemed to be an unnecessary step and was discontinued. The procedure then being to read the story through first without interruption and then go back to discuss each page.

IV. Presenting the Vocabulary:

At the beginning of the year new words were presented as part of the introduction before the story was read. The new words and phrases were written with colored felt pens on a large chart-tablet and placed where it could easily be seen by the children at the listening center. In the example below, imagine that those words underlined are printed in red, the rest of the words in blue.

1. Mrs. Goose forgot.
2. She waddled when she walked.
3. She became so excited.
4. apple butter

Recorded presentation: "On page 109, can you see anything that Mrs. Goose forgot to notice when she got dressed? .... Look at the word chart, number one. Read the sentence. ..... What is the red word? .... Yes, forgot. Read the sentence again. ......Yes, Mrs. Goose forgot. What was it she forgot in the picture? ......Yes, she 'forgot' to put her coat on the right way. .... etc."

The rest of the 'new' words are presented in a similar manner using suggestions in the teacher's manual. As the children became better independent readers, the new words were not presented before the story was read. The word chart was still used, however, as a brief review just before beginning the phonics lesson.

Example:

> "Look at number one on the word chart. Read the sentence. Yes, Mrs. Goose forgot. What is the new word in that sentence? ..... Yes, forgot. Look at number two .... etc."

While the better students seldom needed this review, it was apparent that the slower students referred to the chart frequently during oral reading.

V. Phonetic Analysis:

Also on the chart are words and sentences needed to develop visual-auditory perception of the particular phonics lesson for that day.

Example: 5. cow, clown, town, now

6. slow, crow, know, snow

7. We sometimes say an owl looks wise.

> "Look at number five, read the words with me - cow, clown, town, now. What vowel letter do you see in these words? ......Yes, O. What letter follows an O in each word? ......Yes, W. Sometimes when the letter W follows an O in a word, you hear the vowel sound that you hear in these words. (Repeat words in number 5) Now look at number six, read the words with me - slow, crow, know, snow. How are these words like the words in number five? ...... Yes, they each have the letters OW. Do they have the same sound at the end? ...... No, sometimes OW makes the sound you hear in OWL and sometimes it makes the sound you hear in SNOW. How can you tell which sound to give OW in a word if you don't know the word? ..... Yes, you have to try both sounds to find the sound that makes the word a real word and that makes sense in the sentence. Now read number seven on the chart. We sometimes say an owl looks wise. .... Why did you say owl and not ōwl (using the long Ō sound)? .... That's right, because ōwl (long O sound again) is not a real word. ...... etc.

Occasionally a phonics skill exercise reviewing a concept was given on tape. Exercise sheets and pencils were available for this.

Sample exercise sheet:

1. ā ĕ ŏ
2. ē ĭ ū
3. ī ă ē

Instructions: "Circle the sound you hear in the words I pronounce. Number one: red. Number two: big. Number three: seen." etc.

The words were usually repeated twice and used in a sentence if confusion because of similarity of words was likely. Another type of exercise strengthening vowel perception was to read the word and direct the student to write the vowel sound with correct marking. Vowel sounds ou, ow, au, ir, er, ur, as well as single vowel sounds were practiced in this manner. This type of exercise helped children in spelling as well as in working out words independently in reading. Recorded exercises made children better listeners also, because they soon learned that they had - at the most - two chances to hear the sound and write the response.

VI. Workbook Instruction:

When necessary the children are instructed to bring their workbooks to the listening center. For this particular lesson it seems necessary to have the workbooks:

> "Turn to page 36 in the workbook[4]. and look at the pictures at the top of the page. Look at the picture of the owl. Now read number seven on the word chart again. ..... Yes, We sometimes say an owl looks wise. Have you ever heard anyone spoken of as being 'wise as an owl'? .... How would you compare someone to a rabbit? ... Scared as a rabbit? Fast as a rabbit? ... etc. Read each part of page 36 very carefully and decide which of these animals at the top of the page is like the person in each part by writing the name of the animal on the dotted line."

[4] Think and Do Workbook to accompany More Friends and Neighbors Second Grade Reader, Scott Foresman and Company.

VII. Dismiss Students:

> "All right, Number 5 may turn off and reverse the recorder. Take your seats quietly and do the workbook exercise.

Each earphone has a tag attached with a number, each student has a certain assigned number, a different 'number' each day is told to turn off the recorder, thus there is less confusion as the children complete the lesson and return to their desks.

VIII. Reading Class:

Each group was brought together with the teacher each day to discuss the story that had been presented and studied on tape. Parts were read to prove points, or characters and a narrator were assigned to read the complete story. If a story lent itself well to dramatization students 'play-acted' the story for other groups and occasionally for the first grade. It is significant that unrelated discussion was at a minimum during the oral class work. I believe this was because the students had had time to sort out their thoughts. So often in a teacher-presented lesson the discussion gets a little 'wild' and it is sometimes difficult to hold the conversation within the bounds of the story. How much individual expression to allow and when to call a halt without suppressing spontaneous participation becomes a problem. With a taped lesson the 'conversation' is held within the bounds of the story and by oral class time the student has had an opportunity to distinguish between related and unrelated personal experiences to share with the group. On the tape there are such suggestions as:

> "Have you ever forgotten something as Mrs. Goose did in the story? Perhaps you can think of a time when you were forgetful and tell us about it in class this afternoon."

EQUIPMENT

We used the CALIFONE earphones, which come in a storage box containing the jack attachment. The set includes ten earphones and costs about $80. The storage unit was found to be too cumbersome for the reading table. We used a smaller jack box (a rectangular box about 6 x 4 inches) with more than enough plug-ins for the number of earphones used at one time. The tape recorder was placed on a low table near the reading table and connected to the jack. Earphones were plugged into the jack, the recorder turned on, and a lesson was in progress.

The FUJIYA recorder was used to tape the lessons. This Japanese-made recorder costs about $80. There is at least one other small recorder on the market, the NORELCO, costing about the same amount. The advantage of having a small recorder is that it is less cumbersome for the teacher to carry home. The FUJIYA held up beautifully in spite of almost constant use last year. We have also used the WEBCO and the SONI recorders, each costing about $350 to $400. The larger recorders do facilitate better recordings and are desirable to use when tapes are to be filed for later use. It is also possible to make fuller use of tapes with a larger recorder since recordings can be made on upper and lower tracks on both sides, thus making it possible to record at least 4 lessons on each tape, while the smaller recorders usually have just one track - thus making it possible to make only two recordings, one on each side.

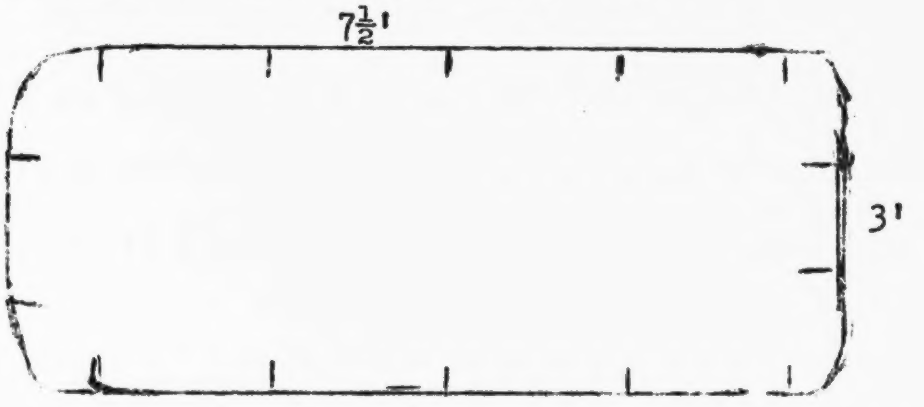
It is not difficult to learn to use the equipment. Second graders can learn in one easy lesson. It may take the teacher a bit longer!

WHAT NEXT

Plans for another year include producing tapes for the complete Scott Foresman second grade reading program, 60's edition, Friends Old and New 2[1] and More Friends Old and New 2[2]. These recordings will be filed for use another year. When this 'basic' program is recorded, additional tapes for another series used as supplementary material can be produced another year. The overhead projector will be used to present the word chart. Transparencies will be made from a typed sheet containing the word and phonics presentation for each story and both the typed sheet and transparency will be filed with the recording. This will make storage less of a problem as the large chart tablets are bulky and harder to keep in good condition. It will also save time since it takes less time to type the chart and run it through a copying machine than it does to make a chart with felt pens. Plans are to have a table constructed with built-in jacks thus alleviating the necessity of having too much equipment and electrical wires.

PLANS FOR A LISTENING CENTER TABLE

Knowing nothing about the technicalities involved in building such a table, it would not seem to be too difficult to wire one sheet of plywood for jack connections and to place another sheet of plyboard over it allowing about an inch space between the two boards by bracing them with dowels or blocks of wood. The top sheet could be attached with screws for easy disassembling for repairs.



The vertical lines indicate jack placement. The table would accommodate twelve students. The main jack for connection to the tape recorder would be more convenient placed at one corner of the table.

Scale: ½" = 1'.

APPENDIX A

SEQUENTIAL TEST SCORES OF PROJECT CLASS

Lyons & Carnahan Reading Developmental Tests

IQ Pupil	FIRST GRADE		SECOND GRADE	
112 KT	1.7	3.2	4.1	4.8
107 CE	1.6	2.8	4.3	4.6
107 DR	1.9	2.5	3.6	3.9
106 MW	2.0	3.2	4.5	4.6
105 SN	1.9	3.7	4.2	4.6
100 RS	1.9	3.1	3.9	4.9
100 AS	2.9	3.2	4.0	4.6
100 SW	1.7	1.9	3.4	4.0
95 AB	1.6	2.8	3.7	4.2
94 RB	2.5	3.7	4.3	4.6
93 TM	1.8	2.8	3.3	3.9
93 KD	1.8	2.5	2.7	3.4
92 JM	1.7	3.5	4.5	4.4
82 CA	1.6	2.1	3.3	3.3
80 JK			3.0	3.3
	Form PA 2/19/62	Form La 5/21/62	Form LA 1/9/63	Form UA 5/20/63

Scores indicate grade level.

APPENDIX B

COMPARING TEST SCORES WITH 1961-62
SECOND GRADE TEST SCORES

Test: Lyons and Carnahan Reading Developmental*

Date	Form	Class	No. Pupils	IQ Range	Median	Mean	Range
2/19/62	LA	1961-1962	21	92-117	3.8	3.6	2.2-4.3
1/9/63	LA	PROJECT	16	80-112	4.2	3.7	1.7-4.5
5/20/63	UA	PROJECT	16	80-112	4.3	4.2	3.2-4.9

The Test Form UA was not administered to the 1961-62 class.

* * * * * * * * *

Test: Scott Foresman Standardized Basic Reading Administered After Completion of "Friends and Neighbors". Total Possible Score: 70

2/14/62	2^1	1961-1962	21	92-117	65.3	63.7	48.5-70
1/14/63	2^1	PROJECT	16	80-112	67	63.7	33.5-69

* Scores indicate grade level

APPENDIX B (Cont'd.)

Test: Scott Foresman Standardized Basic Reading Administered After Completion of "More Friends and Neighbors".
Total Possible Score: 70

Date	Form	Class	No. Pupils	IQ Range	Median	Mean	Range
5/9/62	2^2	1961-1962	21	92-117	60.5	56.5	16.5-65
4/23/63	2^2	PROJECT	16	80-112	67	63.7	33.5-69

* * * * * * *

The students in the 1962-63 Project Class who completed the Houghton Mifflin Series took the standardized tests. All of the eleven who took the tests ranked above the 90th percentile and rated "superior". The class average was:

Median: 184 (11 errors)
Mean: 186 (9 errors)
Range: 180-191 (4-15 errors)

APPENDIX C

TEST SCORES OF PROJECT CLASS

IQ Pupil	FIRST GRADE			SECOND GRADE	
112 KT	65	64	63	68	66
107 CE	64	58	63	67	63
107 DR	67	66	65	68	64
106 MW	57	68	61	68	61
105 SN	68	67	64	68	69
100 RS	67	65	61	67	62
100 AS	61	63	61	69	56
100 SW	58	63	59	68	57
95 AB		55	54	65	62
94 RB	67	67	65	65	66
93 TM	60	58	60	64	61
93 KD	53	58	58	49	50
92 JM	66	62	60	69	60
82 CA	45	60	57	58	50
80 JK	60	50	52	46	53
	PP	1^1	1^2	2^1	2^2
	12/14/61	3/3/62	5/17/62	1/14/63	4/15/63

Total Possible score on each test: 70